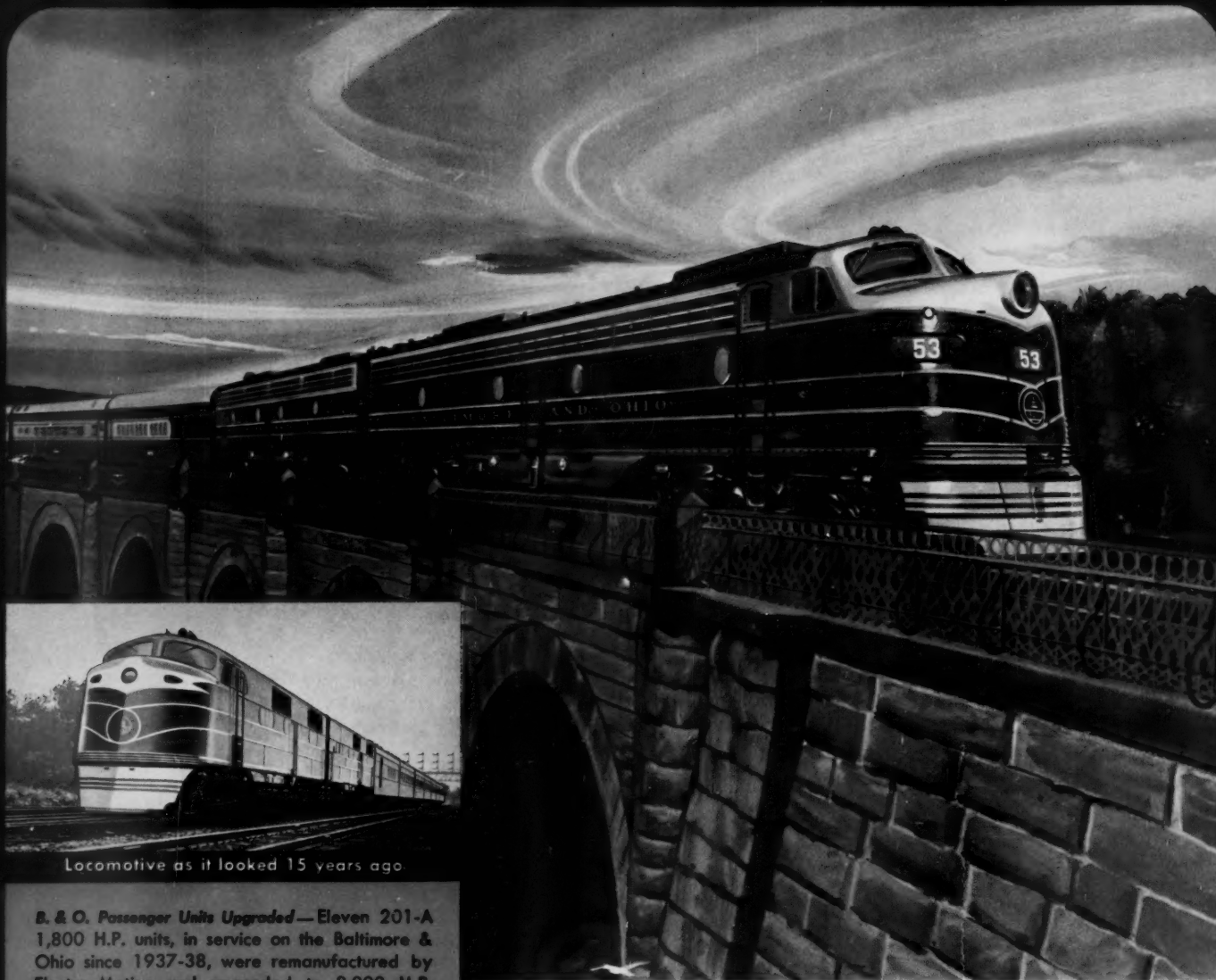


APRIL 11, 1955

UP Gets Aluminum Dome Cars . . . p. 38

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(For further information, see pages 18-19)

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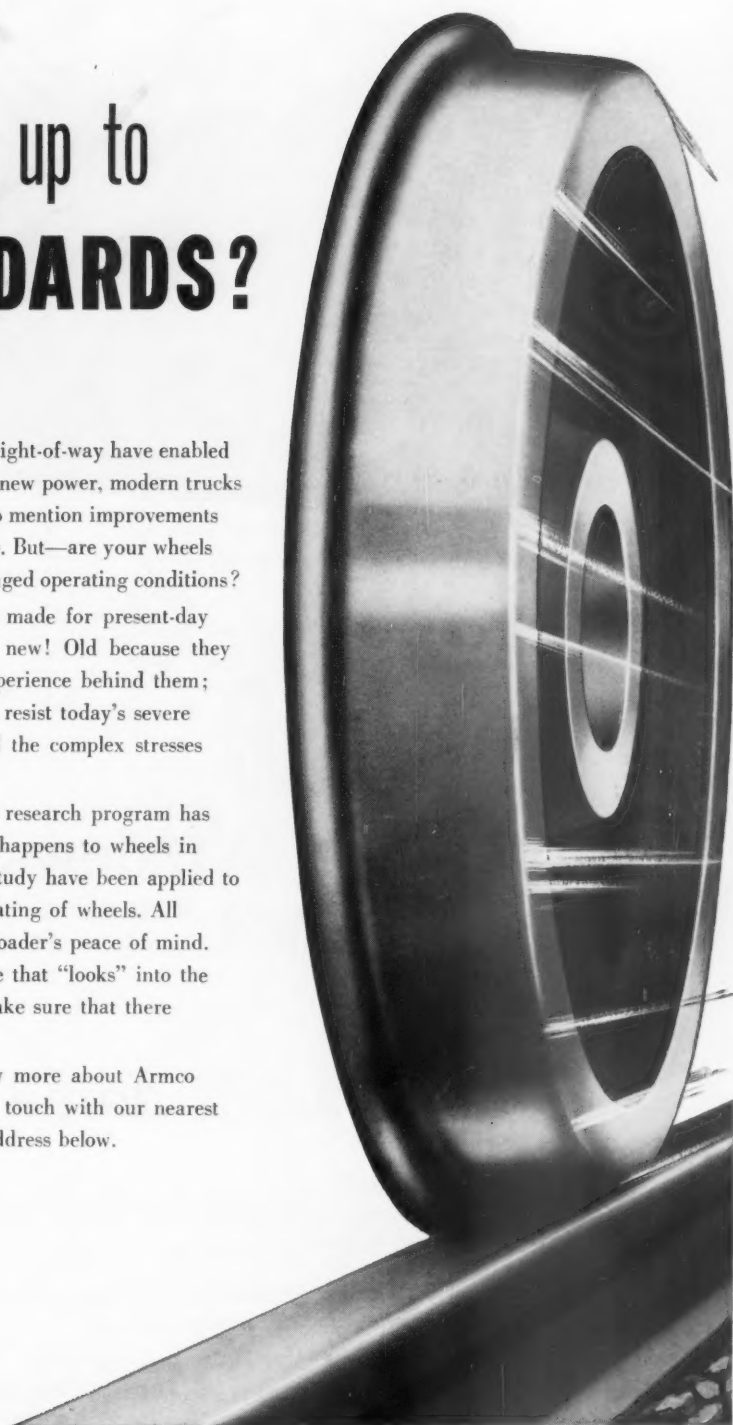
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April 11, 1955

Vol. 138, No. 15

## Week at a Glance

**Outright dismissal**, by unanimous vote of the 10 participating Interstate Commerce Commissioners, ought to write a definite "finis" to the government's outrageous attempt to recover "reparations" from the railroads for alleged—but wholly unproven—overcharges on government freight moved during World War II. The possibility of an appeal still, unfortunately, exists, but it's hard to see why the government should subject either taxpayers or railroads to further expense in a case that ought never to have been begun. **7**

**Railroad purchases** of materials and supplies totaled \$1,424,761,000, excluding equipment, in 1954—considerably less than in 1953, but still a healthy chunk of business for a lot of suppliers. **9**

## FORUM—Shippers have big stake in de-regulation.

In a recent poll 200 shippers were asked: "What general direction should regulation take from here on?" Majority favored keeping our present regulatory policy or expanding it to cover now unregulated carriers. Is such regulatory "protection" of the weak merely an illusion? We think so. **37**

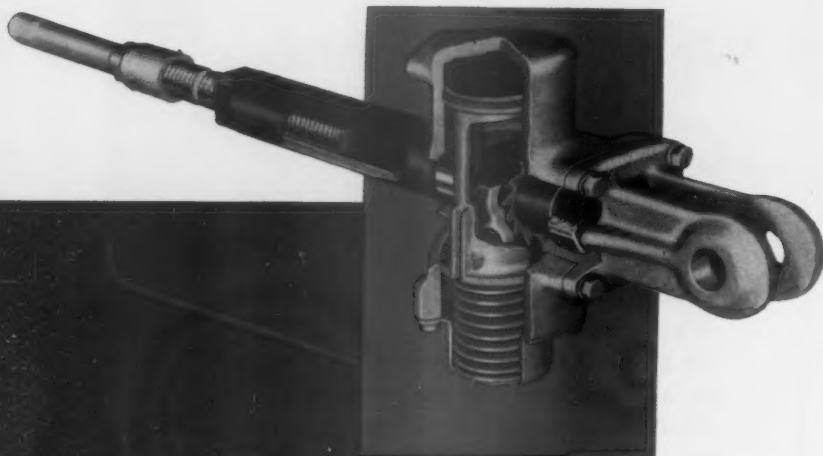
**UP gets aluminum dome cars.** First of an order for 59 ACF cars are dome coaches and observation-lounge cars for three transcontinental trains—other types yet to be delivered. **38**

**GE rectifier-type locomotives**—ten of 'em—are slated for the New Haven's New York-New Haven service. To learn why they were needed, what they're like, and what they'll do, see page **47**

**Private telephone system** pays as used on the L&N. System, which includes 12 automatic exchanges, 9 manual switchboards, and long-distance trunk lines, is in service around the clock. **50**

# Westinghouse Automatic Slack Adjuster


*pays dividends through Savings*



What does MANUAL slack adjustment on freight cars cost you? If your costs are as great as we think they are, you may be able to save many thousands of dollars yearly with the Westinghouse Type D Pneumatic Automatic Slack Adjuster. With this Slack Adjuster no manual adjustment is required for the entire life of the brake shoes.

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## Current Statistics

Operating revenues, one month	
1955 .....	\$752,741,347
1954 .....	749,825,835
Operating expenses, one month	
1955 .....	\$590,002,293
1954 .....	626,806,095
Taxes, one month	
1955 .....	\$ 74,547,270
1954 .....	71,488,503
Net railway operating income, one month	
1955 .....	\$ 68,660,196
1954 .....	32,545,876
Net income, estimated, one month	
1955 .....	\$ 52,000,000
1954 .....	20,000,000
Average price railroad stocks	
April 5, 1955 .....	91.26
April 6, 1954 .....	60.53
Carloadings, revenue freight	
Twelve weeks, 1955 .....	7,720,944
Twelve weeks, 1954 .....	7,363,137
Average daily freight car surplus	
Wk. ended March 26, 1955 ....	30,789
Wk. ended March 27, 1954 ....	133,080
Average daily freight car shortage	
Wk. ended March 26, 1955 ....	1,532
Wk. ended March 27, 1954 ....	158
Freight cars on order	
March 1, 1955 .....	18,663
March 1, 1954 .....	25,441

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## Week at a Glance CONTINUED

**Piggybacks:** They reduce damage. A Perfect Shipping record is being turned in by trailer-flat car service on road after road where "no claims" is the most often expressed comment. **52**

### BRIEFS

Although some of the heaviest ice in years still blocks movement of lake vessels through the Soo locks into Lake Superior, some steel companies are already moving their vessels in the lower lakes for coal and limestone. With the locks and Lake Superior ore ports still closed, plans for initial ore runs remain indefinite. But the Inland Steel Company hopes to beat last year's season opening, when the first ore runs arrived at lower lake ports April 20 and 23.

Railroads are not doing enough to hold the business they have, let alone recapture traffic lost to competing forms of transportation, according to a membership poll taken by the Brotherhood of Railroad Trainmen. Most of the answers to the poll complained that the railroads are lax in providing the services the public expects; one brother went so far as to observe that railroads "are making money and really don't care as to the type of service the public doesn't get!"

Give rail management credit for having faith in its own industry—and for backing that faith with personal dollars. Purchases, by officers and directors of 15 railroads, of common stock in their own companies, between December 11, 1954, and February 10, 1955, totaled \$819,818, according to a recent survey by U. S. News & World Report. Sales of stock, on the same basis and in the same period, were less than half—only \$315,532.

"Truck-air-truck" door-to-door freight service, providing overnight delivery for California fruits and vegetables to Eastern Seaboard destination at express-competitive rates will reportedly be inaugurated soon. Slick Airways, Inc., will handle the long haul, with truck collection and delivery at each end.

# BROWNHOIST

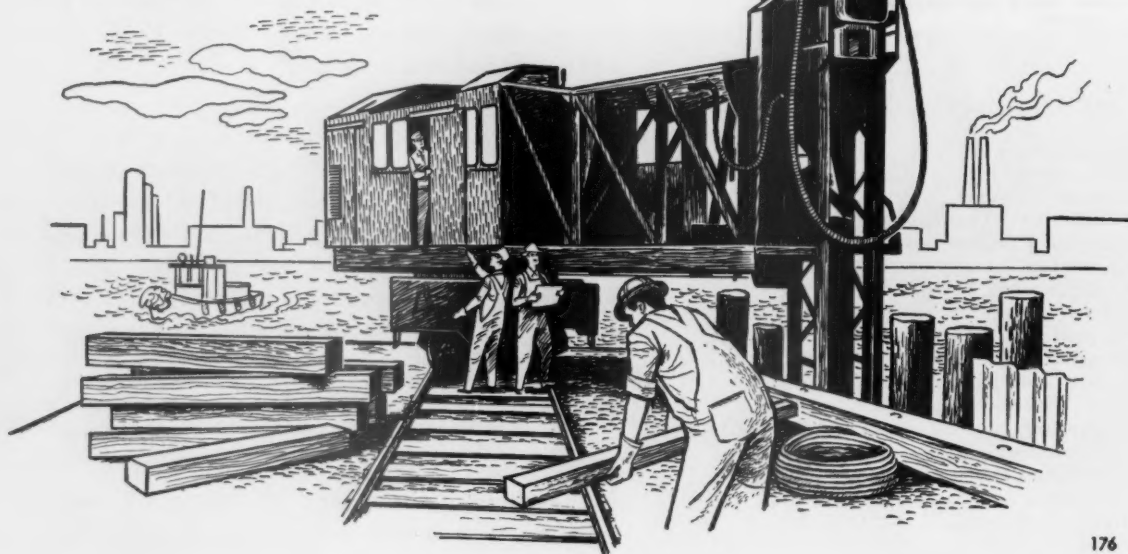
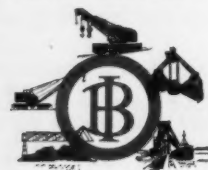
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Brownhoist also builds Diesel Electric Locomotive-Cranes in capacities from 25 tons up, Railroad Wrecking Cranes in capacities to 250 tons, boat unloaders, traveling bridge cranes, fast plants and other special equipment for handling bulk materials fast and efficiently in mines, railroads, docks and large manufacturing plants. For complete information about Brownhoist equipment to speed up your heavy materials handling, consult your nearest Brownhoist representative or write us today.

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# ICC Dismisses Reparations Cases

Government "overcharge" claims against railroads for war services rejected unanimously—Justice Dept. weighs appeal

The Interstate Commerce Commission has dismissed the government's reparations claims against the railroads for alleged overcharges during World War II.

Starting with the position that the rail rates were, if anything, "considerably lower" than they would have been for commercial shippers, the commission dismissed each of 17 separate complaints filed by the government.

Eventually consolidated into one proceeding, the case dates back to June 20, 1946, when the first of the individual complaints was filed. Estimates of the total amount of money involved have ranged through the course of the proceedings as high as three billion dollars, with a generally accepted figure of two billion dollars most frequently quoted.

However, during oral argument of the case before the entire commission (*Railway Age*, December 6, 1954, page 7) a Department of Justice attorney, James E. Kilday, trimmed the government estimate of the amount involved to \$475 million. He characterized this figure as only a "guess," however, and quoted it only at the insistence of ICC Chairman Mitchell.

**Whether to appeal** the commission's decision was not immediately decided, Mr. Kilday said, after the ICC report was released. He stated, though, that the Department of Justice is still going by the \$475-million figure, albeit unofficially.

In its report, the commission took official notice of a statement made by Mr. Kilday before a Congressional committee, when he said the government could expect to recover only about 15% of the then-quoted one-to-three-billion-dollar estimate because of tax credits to which the railroads would have been entitled. This statement was somewhat tempered, however, the commission noted, by the government brief, which stated that such tax relief might have to be sought through Congress.

**Large by Any Standard**—Regardless, the commission stated, "it seems safe to assume that the amount [of reparations claimed] would be large by any standard."

The commission reported that the total freight bill paid by the government was \$6,204,238,000 during the June 1941-September 1946, period covered by the claims. During the same period, the railroads paid between three and four billion dollars in income

taxes, as compared to the out-of-pocket loss to the government of \$1.5 billion when it operated the roads in World War I.

The commission's report runs to 157 pages of printed text (the transcript of the hearings runs to 13,000 pages of testimony), with a detailed review of each of the 17 cases following a more general summary of the issues. It follows in large measure the proposed report made by ICC Examiners Boat and Hosmer, in which they recommended dismissal of all the government complaints (*Railway Age*, July 27, 1953, page 12).

The report was filed unanimously by the 10 commissioners who took part in the consideration of the case, Commissioner Alldredge concurring in the result. Commissioner Hutchinson, newest member of the ICC, did not take part in the consideration or report.

The 17 government complaints assailed export rules, storage-in-transit charges and rates on such items as soldiers' packs, combat vehicles, steel and aluminum landing mats, airplanes and parts, tents and tarpaulins, pallets, blankets, ammunition and explo-

sives, ammunition and cartridge clips, and bomb cluster adapters.

**"Most important"** of these, the commission said, were the complaints dealing with export rules on export shipments to the Pacific coast and shipments earmarked for storage in transit.

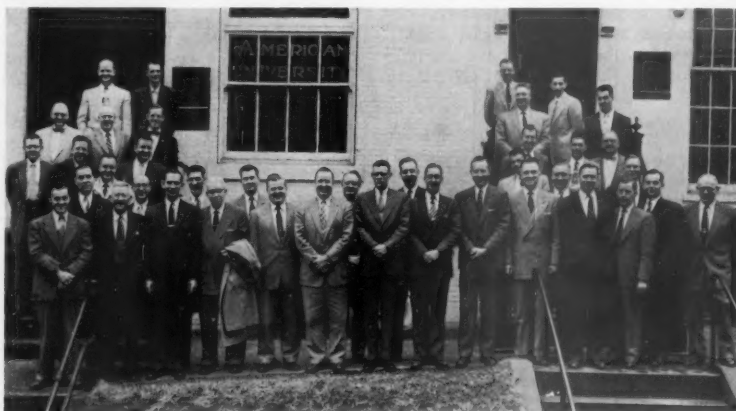
In these cases, the commission pointed out, the railroads preferred to make special rates for the government by Section 22 quotations rather than by published rates which would have been subject to land grant deductions.

The government, however, felt that "such rates should have been provided in a tariff in order that freight charges thereunder could have been further reduced by land grant deductions."

The commission pointed out that the most extensive reductions accorded the government resulted from land grant equalization agreements which had been in effect for many years before the war. Under the agreements, most roads agreed to charge no more on government freight shipments between given points than the land grant rate would have been between the points.

**Agreements Maintained**—The commission noted that, although wartime government freight volume nullified the competitive motive for maintaining the equalized rates, the railroads did so.

The report states that "in many instances the maximum land-grant routes were so circuitous that they could not be regarded as preferred or even feasible routes under any circumstances,



**NINTH RAIL TRANSPORTATION INSTITUTE** at American University, Washington, D.C., saw 41 students, including 26 representatives of 11 roads and 15 armed forces personnel, win certificates when the course was concluded, March 25. H. A. Berry, traveling freight agent for the Norfolk & Western, was class president and delivered the "graduation" class ad-

dress. Guest speaker at the closing ceremonies was Interstate Commerce Commissioner Anthony F. Arpaia, whose remarks were reported in *Railway Age*, March 28, page 9. The course was conducted by F. A. Heileman, major general, US Army, ret. Dr. Hurst R. Anderson, president of the university, distributed the certificates.

much less those which prevailed in wartime."

"Nevertheless," the commission continues in a vein taken from the examiners' report, "the equalizing railroads did not exercise their right to withdraw from the equalization agreement lest their action be criticized as unpatriotic, and from public statements of responsible government officials it is clear that this fear was well grounded."

The commission also discussed the applicability of the two-year statute of limitations in the case, stating that, with the first complaint having been filed no earlier than 1946, reparations could not be awarded on any shipments that moved prior to 1944—if the statute was binding on the government. The government position in the case was that the two-year rule was not binding but the commission, in its report, said "we have consistently refused to accept such an interpretation." However, this issue was not a deciding factor in the case, as the commission noted it is still pending before the courts as the result of a government appeal in another case.

### Alaskan Export-Import Rates Assailed by U.S.

The U.S. Government has filed a complaint with the Interstate Commerce Commission calling for an investigation of allegedly discriminatory rates on export-import traffic to and from Alaska via northwest ports.

The complaint, lodged by the General Services Administration acting for other agencies of the government, states that railroads serving northwest ports have excluded Alaska from their export-import tariffs. The result, GSA charged, has been excessive charges to shippers and receivers of freight destined to and from Alaska.

The tariffs referred to include Hawaii and foreign countries, the GSA stated. Separate, and higher, rates are charged on Alaska freight, the complaint alleged.

### "Agreed Charge" Changes Recommended in Canada

Major changes, generally favorable to railroads, in laws relating to "agreed charges" have been recommended by the Royal Commission created by the Canadian government to make a special study of the controversial subject. The report of the commission, based on lengthy hearings, has been tabled in the House of Commons at Ottawa, pending legalization of its recommendations by changes in the Transport Act.

As reported in *Railway Age* January 24, page 37, "agreed charges"—contracts between railways and shippers providing special low rates in return for a guaranteed percentage of a shipper's business—have been in effect in Canada since the late Thirties. Their application, however, has been limited



**TWO-WAY MOBILE** radio-telephone service on trucks of the Reading Transportation Company was inaugurated April 4 in brief ceremonies at the Reading freight station, Reading, Pa. The installation, plans for which were described in *Railway Age*, March 14, page 15, covers trucks operating from Reading east to Allentown, south to Norristown, north to Pottsville and west and southwest to Columbia and Lancaster.

to a small proportion of railway traffic because of legal restrictions on their use—restrictions which the railways have sought to have strengthened or eliminated, and which some rail competitors and some provincial governments have sought to have strengthened and extended. It was this difference of opinion concerning both present and future use of such charges that led to appointment of Justice W. F. A. Turgeon as a one-man Royal Commission, to investigate the matter.

**Recommendations**—Specifically, Justice Turgeon has suggested:

- That the procedure for putting an agreed charge into effect be shortened and simplified by: (1) Eliminating the requirement for prior approval by the Board of Transport Commissioners; (2) permitting a charge to become effective 20 days after it is filed by a railway; and (3) allowing a charge to operate for three months before becoming subject to attack.
- That water carriers be allowed to become parties to any agreed charge upon certain conditions.
- That the Great Northern, while not eligible to initiate agreed charges, be allowed to become a party, on its Canadian lines, to any agreed charge contract entered into by Canadian railways.
- That any agreed charge be subject to termination, with respect to any party thereto, by withdrawal of that party on 90 days' notice, in cases where the agreement has been effective for at least a year.

The commissioner rejected a demand from the province of Alberta to the

effect that, where agreed charges have been negotiated on transcontinental traffic, Alberta shippers should be entitled to agreed charges to intermediate points under the same essential conditions and at rates no more than one and one-third times those applying on transcontinental movements. In rejecting this demand, Justice Turgeon said:

"Having regard to the present unfavorable financial condition of the railways and their urgent need of relief it would be unwise, while granting them the measure of freedom in making agreed charges, to create at the same time new complications which might hamper them considerably in the exercise of the agreed-charge practice."

### PRR, P-RSL, File Increase in Commuter Fares

Increases in commutation fares to and from stations in the Philadelphia-Camden, N.J., area were filed March 31 by the Pennsylvania and the Pennsylvania-Reading Seashore Lines. The increases, which average approximately 10%, would become effective April 30. One-way and round-trip fares, 10-trip tickets, and shoppers' "thrifty tickets," for use in non-commuting hours, are not involved in the increase, which is the first in the area since early 1952.

## Education

### Training Program Arranged By U.S. Signal Makers

Two domestic manufacturers of railroad safety and signaling equipment have cooperated with the Foreign Operations Administration in arranging a training program for two Yugoslav railroaders. Each of the firms—General Railway Signal Company and Union Switch & Signal division of Westinghouse Air Brake Company—has arranged a month's program for the visitors. The program arranged by each calls for the Yugoslavs to spend a week in the plant followed by three weeks on various railroads to see the equipment in use.

### Steam Locomotive Research Scholarships Are Available

Applications are being accepted from sons of railroad families for the Steam Locomotive Research Institute scholarships at the Stevens Institute of Technology. Candidates must have the necessary scholastic qualifications for admission to Stevens, then must prove their need for financial assistance. The scholarships were established in September 1952 with funds remaining after dissolution of the research institute.

## Purchases & Stores

# Railroads' Purchases Down \$495.7 Million in 1954

Diesel fuel only major supply item with expenditure topping its 1953 figure

Class I railroads spent \$1,424,761,000 for fuel, materials and supplies, excluding equipment, in 1954, the Association of American Railroads has announced. This was \$495,720,000 less than the 1953 expenditure of \$1,920,481,000.

For fuel alone railroads spent \$433,310,000 in 1954, compared with \$509,611,000 the previous year. Coal expenditures totaled \$81,013,000 last year against \$148,774,000 in 1953. Diesel fuel expenditures, on the other hand, were up \$7,553,000 to a total of \$307,772,000 in 1954.

Expenditures for iron and steel products amounted to \$406,476,000 last year and \$612,584,000 the year before. Miscellaneous expenditures came to \$470,545,000 compared with \$622,097,000 in 1953; while forest products cost \$114,430,000 in 1954, \$176,189,000 in 1953. Detailed figures are set out in the accompanying tables, all of which are based on carrier reports to the Bureau of Railway Economics.

### ANNUAL PURCHASES OF MATERIALS AND SUPPLIES (EXCLUDING EQUIPMENT), 1923-1954—Class I Railroads (Thousands of dollars)

Year	Fuel	Forest products	Iron and steel products	Miscellaneous	Total	Total less fuel
1923	\$617,800	\$232,511	\$464,955	\$423,437	\$1,738,703	\$1,120,903
1924	471,656	180,872	365,610	324,917	1,343,055	871,399
1925	459,465	170,305	419,255	343,018	1,392,043	932,578
1926	473,354	186,291	507,302	392,085	1,559,032	1,085,678
1927	438,821	175,729	407,304	374,074	1,395,928	957,107
1928	384,608	160,794	374,575	351,364	1,271,341	886,733
1929	364,392	157,551	406,962	400,630	1,329,535	965,143
1930*	306,500	134,600	304,700	292,700	1,038,500	732,000
1931*	244,500	76,250	188,600	185,650	695,000	450,500
1932*	178,250	52,200	94,550	120,000	445,000	266,750
1933	180,526	42,442	104,327	138,555	465,850	285,324
1934	217,294	64,271	150,671	167,988	600,224	382,930
1935	232,723	57,367	135,397	167,538	593,025	360,302
1936	272,270	76,683	239,486	214,982	803,421	531,151
1937	294,293	104,707	310,658	256,725	966,383	672,090
1938	243,783	56,968	127,141	155,390	583,282	339,499
1939	257,273	69,971	236,338	205,732	769,314	512,041
1940	273,556	82,185	264,480	234,242	854,463	580,907
1941	349,765	103,771	379,951	327,787	1,161,274	811,509
1942	426,335	115,227	353,957	364,292	1,259,811	833,476
1943	527,296	150,255	339,631	377,099	1,394,281	866,985
1944	585,832	158,957	431,692	434,048	1,610,529	1,024,697
1945	555,155	136,962	418,438	461,849	1,572,404	1,017,249
1946	553,153	148,984	416,303	452,115	1,570,555	1,017,402
1947	691,630	171,592	503,965	542,022	1,909,209	1,217,579
1948	833,040	166,488	590,289	593,514	2,183,331	1,350,291
1949	564,159	142,232	454,079	480,936	1,641,406	1,077,247
1950	608,719	121,256	509,306	500,427	1,739,908	1,131,189
1951	621,497	188,186	703,885	662,291	2,175,859	1,554,362
1952	538,659	176,966	513,060	589,065	1,817,750	1,279,091
1953	509,611	176,189	612,584	622,097	1,920,481	1,410,870
1954	433,310	114,430	406,476	470,545	1,424,761	991,451

\*Railway Age estimates.

Note: "Iron & Steel Products" and "Miscellaneous," 1927-1948, revised to conform with report AS-24, Year 1949.

Source: Reports of carriers to the Bureau of Railway Economics.

### PURCHASES OF FUEL, MATERIAL AND SUPPLIES—Class I Railroads—Calendar Years 1954 and 1953

Item	1954	1953
<b>FUEL:</b>		
Bituminous coal	\$77,142,000	\$144,162,000
Anthracite coal	3,871,000	4,612,000
Fuel oil—Residual	28,979,000	45,036,000
Fuel oil—Diesel	307,772,000	300,219,000
Gasoline	9,727,000	10,472,000
All other (coke, wood, fuel for illumination)	5,819,000	5,110,000
Total fuel	433,310,000	509,611,000
<b>FOREST PRODUCTS:</b>		
Cross ties (treated and untreated)	\$63,459,000	\$96,382,000
Switch & bridge ties (treated & untr.) and timber	16,771,000	25,472,000
Lumber (equipment, rough and finished)	23,221,000	43,039,000
Other forest products	8,979,000	11,296,000
Total forest products	114,430,000	176,189,000
<b>IRON AND STEEL PRODUCTS:</b>		
Steel rail (new and second hand, except scrap)	\$86,906,000	\$120,597,000
Wheels, axles and tires	39,728,000	57,963,000
Frogs, switches and crossings, and parts of same	18,901,000	30,558,000
Track fastenings, track bolts, spikes, etc.	57,962,000	89,293,000
Iron bridges, turntables & struct. steel, all kinds	10,280,000	12,191,000
Bar iron and steel, spring steel, tool steel, unfabricated rolled shapes, wire netting and chain, except light coil; boiler, firebox, tank, and sheet iron and steel, all kinds	23,849,000	58,988,000
Forgings and pressed steel parts for locomotives	1,330,000	2,746,000
Car forgings, iron and steel, and fabricated or shaped steel, for passenger and freight cars	24,464,000	33,936,000
Flues and tubes for locos. & stationary boilers	1,327,000	2,833,000
Bolts, nuts, washers, rivets, lag screws, pins & studs	7,958,000	15,021,000
Springs, helical and elliptical, all kinds for locomotives and cars	4,744,000	6,243,000
Locomotive and car castings, beams, couplers, frames and car roofs	60,722,000	89,215,000

Item	1954	1953
<b>Truck and roadway tools, all kinds, including hand and power operated tools, miscellaneous roadway material and fencing. Motor, hand, push and trailer cars, and parts for same</b>		
Machinery and repair parts	12,939,000	18,106,000
Pipe, iron and steel, and fittings, all kinds	21,573,000	28,832,000
Hardware, all kinds, including nails	6,777,000	10,756,000
Hand & small machine tools, such as drills, taps, reamers, dies, chasers, including air tools & parts	7,085,000	10,714,000
All other iron and steel products, including pig iron, cast iron water pipe and culvert pipe	10,688,000	15,022,000
Total iron and steel products	9,243,000	9,570,000
	406,476,000	612,584,000
<b>MISCELLANEOUS:</b>		
Cement, lime, plaster, bldg. brick & other bldg. matls., except cast iron water pipe and culvert pipe	\$7,749,000	\$11,505,000
Lubricating oils and grease; illuminating oils; boiler compound; waste	35,220,000	42,151,000
Non-ferrous metal and non-ferrous metal products	28,652,000	45,018,000
Ballast	20,203,000	32,215,000
Electrical materials including electrical material for Diesel locomotives	42,790,000	55,515,000
Stationery and printing	31,318,000	34,719,000
Commissary supplies for dining cars & restaurants	36,554,000	41,023,000
Rubber and leather goods	8,580,000	12,650,000
Glass, drugs, chemicals, including chemicals for timber treatment; painters' supplies	41,476,000	56,698,000
Arch brick for locomotives	1,108,000	2,060,000
Passenger car trimmings	12,764,000	17,992,000
Locomotive, train and station supplies	22,989,000	31,031,000
Interlocking and signal material	37,847,000	52,087,000
Telegraph, telephone and radio material	12,622,000	17,376,000
Air brake material	14,294,000	23,088,000
Standard & spec'l mechanical appliances for locos.	5,578,000	10,058,000
Automotive equip. & supplies, except diesel mot'l	11,929,000	93,254,000
Diesel material not elsewhere classified	69,870,000	
All other miscellaneous purchases	29,002,000	43,657,000
Total miscellaneous purchases	470,545,000	622,097,000
Grand Total	\$1,424,761,000	\$1,920,481,000

Source: Reports of the carriers to the Bureau of Railway Economics.



## Figures of the Week

### January Accidents

The Interstate Commerce Commission has released its Bureau of Transport Economics and Statistics' preliminary summary of railroad accidents for January, including comparative figures for January 1954.

The compilation, subject to revision, follows:

Item	Month of January	
	1955	1954
Number of train accidents* ..	655	717
Number of accidents resulting in casualties .....	42	50
Number of casualties in train, train-service and nontrain accidents:		
Trespassers:		
Killed .....	51	38
Injured .....	46	44
Passengers on trains:		
(a) In train accidents* ..		
Killed .....	1	—
Injured .....	45	9
(b) In train-service accidents:		
Killed .....	2	1
Injured .....	172	143
Travelers not on trains:		
Killed .....	2	2
Injured .....	93	83
Employees on duty:		
Killed .....	19	22
Injured .....	1,372	1,434
All other non-trespassers:**		
Killed .....	168	139
Injured .....	536	586
Total—All classes of persons:		
Killed .....	243	202
Injured .....	2,264	2,299

\* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former caused dam-

age of more than \$350 to railway property in 1954. Beginning January 1, 1955, this minimum was raised to \$375. Only a minor part of the total accidents result in casualties to persons, as noted above.

\*\* Casualties to "Other non-trespassers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and non-trespassers, were as follows:

Persons:		
Killed .....	158	132
Injured .....	405	426

### AAR Price Index Reached All-Time High in January

The Association of American Railroads' price index was at an all-time high of 125.1 in January. The previous peak was January 1954's 124.1.

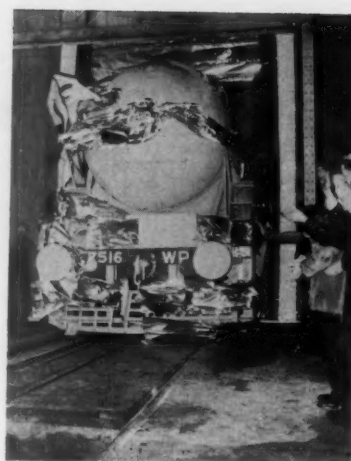
This was shown by the latest issue of the index, which is published quarterly by the association's Bureau of Railway Economics. The index reflects average unit prices of materials, including fuel, on the basis of the average of the June figures of 1947, 1948 and 1949 as 100.

January's 125.1 was an increase of 1.2 points above October 1954's 123.9. The latter was one point above July 1954's 122.9.

### Freight Car Loadings

Carloadings for the week ended April 2 were not available when this issue went to press.

Loadings of revenue freight for the week ended March 26 totaled 639,447



**FIRST OF 120** steam locomotives being built for India by the Canadian Locomotive Company, Kingston, Ont., was completed, with appropriate ceremonies, early last month. The coal-burning 4-6-2-type locomotives, for passenger service, are built to India's broad (5 ft, 6 in.) gage; they weigh, with tender, 404,000 lb; operate at 210 lb boiler pressure; have 67-in. driving wheels, and exert tractive force of 30,550 lb.

cars; the summary, compiled by the Car Service Division, AAR follows:

#### REVENUE FREIGHT CAR LOADINGS

For the week ended Saturday, March 26

District	1955	1954	1953
Eastern .....	118,568	107,659	128,236
Allegheny .....	129,329	114,020	148,669
Poconos .....	53,468	43,990	51,579
Southern .....	108,105	117,279	132,558
Northwestern .....	70,992	68,134	79,494
Central Western .....	110,119	97,965	114,975
Southwestern ..	53,866	52,347	59,822
Total Western Districts .....	234,977	218,466	254,291
Total All Roads .....	639,447	601,414	715,333
Commodities:			
Grain and grain products .....	40,053	40,680	43,267
Livestock .....	6,995	7,344	6,703
Coal .....	110,111	95,731	110,595
Coke .....	10,984	7,897	14,793
Forest products ..	40,381	37,855	44,115
Ore .....	16,994	15,113	23,245
Merchandise l.c.l. ..	61,689	64,768	72,635
Miscellaneous .....	352,240	332,026	399,980
March 26 .....	639,447	601,414	715,333
March 19 .....	656,117	609,959	701,065
March 12 .....	666,548	609,937	700,183
March 5 .....	658,975	590,576	684,864
February 26 .....	635,453	595,031	668,654
Cumulative total, 12 weeks ..	7,720,944	7,363,137	8,319,830

**In Canada.**—Carloadings for the seven-day period ended March 21 totaled 68,443 cars, compared with 67,845 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
March 21, 1955	68,443	33,109
March 21, 1954	66,175	28,973
Cumulative Totals		
March 21, 1955	757,009	354,246
March 21, 1954	737,514	323,080

### COVERAGE OF FIXED CHARGES BY LARGE RAILWAYS

(Roads with Gross Above \$50 Million in 1954)

Railroad	Income available for fixed charges		Total fixed charges		Ratio of amount available to fixed charges	
	1954	1953	1954	1953	1954	1953
Norfolk & Western .....	\$27,732	\$29,510	\$1,441	\$1,432	19.24	20.61
St. L. S. W. Lines .....	17,489	10,259	950	1,043	18.41	9.84
Union Pacific .....	74,652	75,437	5,029	5,007	14.84	15.07
A.T. & S.F. & Aff. Cos. ....	74,430	85,106	6,356	6,012	11.71	14.16
Chic. R.I. & Pac. ....	21,814	29,217	3,145	3,305	6.94	8.84
Denver & Rio Grande .....	14,273	13,858	2,147	2,077	6.65	6.67
Seaboard Air Line .....	23,989	24,851	3,857	3,943	6.22	6.30
Wabash .....	13,244	14,427	2,584	2,593	5.13	5.56
C. B. & Q. ....	29,655	31,948	6,643	6,286	4.46	5.08
Gulf, Mobile & Ohio .....	9,497	11,372	2,207	2,262	4.30	5.03
Great Northern .....	33,537	38,003	8,095	8,060	4.14	4.72
Chesapeake & Ohio .....	52,998	61,466	13,088	13,398	4.05	4.59
C. M., St. P. & P. ....	18,397	18,387	4,593	4,415	4.01	4.16
Illinois Central .....	30,028	35,001	8,014	8,632	3.75	4.05
N.Y., C. & St. L. ....	19,990	23,119	5,529	5,252	3.62	4.40
Southern Pacific .....	64,658	97,074	18,838	18,258	3.43	5.32
Texas & Pacific .....	10,261	14,184	3,023	3,153	3.39	4.50
Louisville & Nashville .....	28,174	39,593	9,247	8,940	3.05	4.43
Southern .....	39,728	46,392	13,465	13,202	2.95	3.51
St. L.—S.F. ....	12,194	16,539	4,250	4,067	2.87	4.07
N.Y., N.H. & H. ....	17,201	15,135	6,081	6,355	2.83	2.38
Atlantic Coast Line .....	18,649	18,641	6,901	6,612	2.70	2.82
Erie .....	13,494	19,855	5,111	5,184	2.64	3.83
Reading .....	14,882	18,318	5,692	5,836	2.61	3.14
M.-K.-T. Lines .....	7,685	10,005	2,987	2,985	2.57	3.35
Texas & New Orleans .....	6,859	13,014	2,742	2,764	2.50	4.71
Northern Pacific .....	24,809	25,542	10,451	10,003	2.37	2.55
Lehigh Valley .....	6,643	11,329	3,100	3,285	2.14	3.45
Del., Lacko. & Western .....	9,024	12,074	4,752	4,924	1.90	2.45
Missouri Pacific .....	29,941	28,745	18,017	17,973	1.66	1.60
Baltimore & Ohio .....	39,144	53,377	24,616	25,344	1.59	2.11
Pennsylvania .....	67,991	107,260	49,438	62,962	1.38	1.70
Boston & Maine .....	3,605	6,055	3,033	3,019	1.19	2.01
New York Central .....	56,513	83,155	47,325	49,153	1.19	1.69
Central RR Co. of N.J. ....	4,583	5,576	4,514	4,457	1.02	1.25
Chicago & N. Wn. ....	2,219	10,721	3,772	3,396	.59	3.16
Grand Trunk Wn. ....	1,190	5,578	4,509	4,422	.26	1.26
Long Island* .....	41,620	44,053	1,923	2,300	—	—

\* In trusteeship in 1953.

† In trusteeship in 1953 and 1954.

d Deficit.

From the March 18, 1955, "Monthly Comment," issued by the Bureau of Transport Economics and Statistics, ICC.



## Operations

### Pennsylvania, Hertz Join To Push Rail-Auto Plan

The Pennsylvania is installing service counters in its major large-city terminals and free direct-line telephone service in other stations, as the result of a new contract between the railroad and Hertz Rent-A-Car System.

As noted in *Railway Age* March 21, page 7, the PRR is extending Hertz service to a total of 64 communities in 11 states.

"This is a coordinated assault on today's travel problems brought about by overcrowded highways and bottleneck approaches to most metropolitan areas," Fred Carpi, PRR vice-president of traffic, declared.

J. J. Stedem, executive vice-president of Hertz, said the Pennsylvania's expanded car rental service will make it easier for travelers to go by train and have automobiles for personal transportation at stopover points and at destination.

### "Beware of the Deferred Maintenance Dollar"

"A dollar saved at the expense of physical plant can be the poorest dollar you ever laid your hands on,"

D. W. Brosnan, executive vice-president of the Southern, told a group of railroad and railway supply men in Chicago recently.

Speaking extemporaneously on "Modern Rail Service and Control of Cost," Mr. Brosnan said track and physical plant "cannot be undermaintained indefinitely without storing up trouble." He added that superior products available today allow longer maintenance cycles, and that railroads must remain in today's highly competitive transport picture. "Fix up your plant! Fix it up right! Borrow the money if you have to. You'll earn it back surprisingly soon. This is a challenge with money in it—up to 100% return a year! There isn't a railroad in business that can afford not to find money to modernize its plant," he stated.

**Faster Service**—Railroads today must offer better quality services, Mr. Brosnan continued. "By this I don't mean we have to run the wheels off our cars, but we must produce an average overall performance of 35 mph, including yard time. This means running trains over the road at 60 to 70 mph. It means eliminating switching of cars at every division point (and that will help reduce damage claims)."

Many yard services are non-productive and non-compensatory, Mr. Brosnan stated. "The most important function of a yard is to reduce time. On the Southern, over \$50 million has been spent recently on modern retainer yards and we are getting back

\$35 million every year through reduced costs," he revealed.

**Paradox**—Better use of freight cars can yield a "gold mine" in savings, he said. Recent yard checks showed that only about 30% of empty box cars on hand in Southern yards were Class A or Class B. "Yet with 80% of our traffic demanding cars suitable for first-class freight, two-thirds of the cars we have on hand are suitable only for rough freight. There are billions of dollars in traffic available if we can correct this deficiency," he asserted, adding that cross-hauling of empty rough freight box cars takes still more money down the drain.

**Poor Help**—Mr. Brosnan advocated a "steady, stretched-out maintenance program" wherein a relatively stable maintenance force works on a carefully regulated schedule. Cyclical rushes of work and layoffs, that result when the maintenance dollar is used to balance the budget, produce many undesirable effects, he stated. "In the rushes you must hire temporary help. It is always poorer, inexperienced help and it is, therefore, poor economy. Stable work produces stable workers and among stable men you are far less apt to have labor difficulties."

**Top Price?**—"Railroad transportation may be priced about as high as the traffic will bear right now," he continued. "In fact, we seem to be above the law of diminishing returns. Cost is the most important single factor governing selection of transporta-

## BUILDER FORESEES BIG DEMAND FOR DIESELS

"We are now on the threshold of a large diesel locomotive remanufacturing program to revitalize work-weary diesels and incorporate in them the improvements that continually are being made in the various components of the diesel locomotive. This market conceivably could approximate in units the total new locomotive market since the diesel locomotive first was introduced.

"There are many facets of the diesel locomotive rebuilt picture, however. Not the least perplexing is determination of when a diesel locomotive should be scrapped. Should there be an arbitrary date of, say 15 years, or 20 or 30 years, at which time the locomotive should be sent to the scrap heap and a new locomotive ordered in its place? Is there a point of 'no return' where the dollar depreciation charges and the dollar maintenance and rebuilding charges meet?

"If so, that is the time when new diesel locomotives will replace old diesel locomotives. Such a new locomotive replacement market in 1970—on the basis of a 20-year locomotive service life—will total about 3,400 diesel locomotive units per year. In addition to that, there will be the diesel locomotive remanufacturing business, mentioned above. Taking all the diesel road locomotive units today in the seven-year age-bracket, to take an arbitrary major overhaul period, indicates a potential diesel remanufacturing business of 1,700 units per year. . . .

"In summation, the replacement market for diesel locomotives can be divided into four major categories:

"(1) The domestic market for new diesel loco-

motives to replace remaining steam power on American railroads. This program will involve the manufacture of some 5,000 additional diesel locomotive units.

"(2) The diesel locomotive remanufacturing business—the modernization and upgrading of older diesel units to bring them up to today's performance standards. If, on the average, it proves profitable to the railroads to send their diesel units to the manufacturer for such remanufacturing about every seven years, this could mean an annual remanufacturing market in excess of 1,700 units. This represents the number of locomotives delivered only in 1947 and 1948 (prior to heaviest production years), which on a seven-year cycle would be ready for remanufacturing in 1955. The potential market, on a unit basis, could approximate the total number of diesels in service after the last steam locomotive is replaced.

"(3) The diesel-to-replace-diesel market. This would be calculated on the basis of a diesel locomotive become obsolete after an arbitrary number of years and also on the basis of depreciation charges making it uneconomical to remanufacture the unit at the end of the depreciation period. This market could total 3,400 units per year, assuming a 20-year service life, based on deliveries in the year 1950.

"(4) The export market. This market potentially is as great, if not greater, than the domestic market has been."

Nelson C. Dezendorf, vice-president, General Motors Corporation and general manager, Electro-Motive Division, in the *Investment Dealers Digest*, March 14, 1955.

tion. We must keep ours in line." Service-wise, Mr. Brosnan suggested that railroads may have to consider some sort of tie-in with the trucking industry to reach the growing number of off-rail shippers. He did not amplify this statement with respect to piggyback, however.

He urged railroad men to try every possible avenue toward improving service or performing it at lower cost. "Can't" is a weed railroad operating men will have to pull out of their garden," he concluded.

## CNR Cuts Montreal Commuter Service

The Canadian National will eliminate all its Montreal Lakeshore commuter trains west of Dorval to Vaudreuil, effective April 24. The points affected lie in a thickly populated area in the western part of the island of Montreal, where CNR and Canadian Pacific main-line tracks run side-by-side. Commuter service will be continued by the CPR.

The CNR says its move is to make economies, by eliminating a needless duplication of service. Its Montreal-Brockville local trains will continue to be available to commuters.

In the Toronto commuter area suburban rail fares were increased March 31.

## PRR Adopts "Broad Program" to Increase LCL

Improved merchandise freight service, and lower rates for large less-than-carload shipments, six day-per week

service at principal terminals, seven-day movement of freight, radio-dispatched trucks, free pickup and delivery service and other innovations for package freight were introduced by the Pennsylvania April 1.

Announcing the broad program of betterments in the road's "Keystone Merchandise Service" (*Railway Age*, February 25, 1950, page 33), Fred Carpi, vice-president, traffic, said substantially lower rates have been set for most shipments of 5,000 lb or over. Also, these shipments will be loaded direct to destination without transfer of merchandise enroute.

An LCL Traffic Advisory Committee of prominent industrialists, who are large shippers and receivers of package freight in areas served by the Pennsylvania, will be formed and the railroad will assign special merchandise representatives to devote their entire time to serving needs of lcl shippers at major points on the system.

Mr. Carpi said the railroad is experimenting with two-way radio hook-ups between pickup and delivery trucks and freight stations. "With the aid of direct radio contact, trucks can be dispatched immediately from wherever they may be to pick up freight when patrons call for service. In many cases this can result in saving several hours in getting merchandise to our terminals, with corresponding savings of up to a day in delivery at destination.

"Plans have been in the making for some time," Mr. Carpi added, "to provide these and other improvements in expedited door-to-door service for merchandise shippers, offering railroad dependability, competitive rates for all shipments and special rates for large shipments, free pickup service at point

of origin and free delivery at destination, and special attention and expediting for our blue-tagged lcl cars everywhere on the railroad."

The PRR now has in lcl service more than 900 merchandise freight car lines serving over 1,500 points in the East and Middle West, a fleet of 8,600 trucks and trailers, and more than 500 box cars especially equipped for merchandise and package freight. Service to patrons at points beyond metropolitan areas has been strengthened by operation of 220 line-haul motor truck routes, which move merchandise traffic to and from larger freight stations with greater speed and efficiency than the local freight trains they replaced. The line-haul truck fleet covers 8,500 miles radiating from 103 terminals. Each merchandise freight car carries a distinctive blue tag bearing the PRR keystone emblem in red and the words "L.C.L. Merchandise—this car must not be delayed."

"With capable men working full time to give lcl shippers good service and with a committee of shippers themselves to give us the benefit of their advice and counsel, we expect this year to show a substantial increase over the more than 5,000,000 shipments of lcl freight handled by the Pennsylvania in 1954," Mr. Carpi declared, adding that announcement of shippers who agree to serve on the Traffic Advisory Committee will be made shortly.

## Research Creates New Frontiers, Says Megee

Expenditures for railroad research are creating new frontiers in the industry, Caleb R. Megee, vice-chairman



TWO "RAILINER" CONTAINERS can be loaded on a flat car. Transfer between truck and car can be handled by one man "in a matter of minutes."



A SPECIALLY DESIGNED TRAILER, with its own motor-driven hydraulic lifting apparatus and winch, transfers "Railiner" units between flat car and highway carrier.

## Truck-Size Container Enters "Piggyback" Field

A container designed to save space, weight and expense of tie-down in coordinated rail-highway service has been placed on the market by Container Freight, Inc., Birmingham, Ala. Costing between \$2,500 and \$3,000, depending upon quantity, the "Railiner" units (see photos) can be purchased outright or leased on a percentage-of

revenue basis, according to a recent announcement by Container Freight.

The container units, with a load limit of 35,000 lb, are made of aluminum with plywood interior and treated oak flooring. They measure 20 ft by 8 ft by 8 ft.

Tests of "Railiner" units were first conducted by the Illinois Central and the Central of Georgia in 1948 and 1949 (*Railway Age*, January 31, 1948, page 49). Further studies were conducted on the St. Louis-San Francisco

in 1954, prior to placing the containers on the market this year.

A truck semi-trailer with built-in devices for effecting transfer between flat cars and highway carriers is also available. A. M. Ribe, president of Container Freight, estimates that one special transfer trailer would be required for every 10 to 20 "Railiner" container units, depending upon transit time and speed with which loading and unloading must be performed at origin and destination.

of the Car Service Division, Association of American Railroads, told the recent Niagara Falls, N.Y., meeting of the Great Lakes Regional Advisory Board. Mr. Megee forecast 1955 capital expenditures by domestic railroads would be about \$800,000,000, not including the cost of research.

The meeting adopted a resolution asking Congress to repeal the transportation tax, pointing out that the tax discriminates against common carriers in favor of private carriers. Also adopted was the report of a subcommittee saying that "for the time being" the board would be continued along present lines, "processing only transportation services with railroads, and that other transport agencies be excluded from board meetings."

The following officers were elected at the meeting: President, Karl S. Wright, general traffic manager, Carborundum Company; first vice-president and chairman, executive committee, G. J. Bleibtrey, director of traffic, Motor Wheel Corporation; second vice-president, L. A. Pomeroy, traffic manager, National Malleable & Steel Castings Corp.; general secretary, J. A. Jacobson, assistant traffic commissioner, Cleveland Chamber of Commerce; and secretary, D. C. Brittain. Next quarterly meeting of the board will be in Cleveland, June 21-22.

## SP Gets New Research Department

Increased research activities of the Southern Pacific are now coordinated under a newly created Department of Research and Mechanical Standards, headquartered at the railroad's general offices in San Francisco, with field laboratories at Sacramento, Roseville, Ogden, Los Angeles and El Paso. The new department is headed by P. V. Garin, formerly engineer of tests, and is part of the motive power department, headed by B. M. Brown, under Vice-President J. W. Corbett (operations).

The enlarged Sacramento laboratory staff now totals 22 persons. Facilities there have been modernized so the laboratory can serve more efficiently as the center for chemical and physical analyses and material inspection and testing for all SP lines west of El Paso, and also for certain tests done for Pacific Fruit Express Company, jointly owned by SP and Union Pacific. Laboratories at other points are mostly concerned with testing of diesel locomotive parts, fuels and lubrication.

Also under jurisdiction of the new department are a number of research projects, some of which are being handled with help of the Stanford Research Institute, of which SP is an associate member. Currently under way are projects to develop a cushioning coupler for freight cars, more effective sanding devices for locomotives, better consumption of heavier fuel oil, improved fire protection for cotton shipments, and stronger shipping containers. A transparent box car has been

built for visual study of various methods of tying down loads for safe movement. Laboratory work and research are closely coordinated with similar work carried on by the Association of American Railroads.

## NSSTC to Continue LCL Build-Up

Continued shipper-rail cooperation in support of the National Small Shipments Traffic Conference's plan to restore less-carload traffic to rails was agreed upon at a joint meeting of railroad representatives and NSSTC members in Chicago, March 31.

George O. Griffith, chairman of the small shippers' group, told 70 railroad traffic representatives in attendance that the plan—which calls for railroads serving 12 eastern and midwestern cities to keep lcl cars on schedule regardless of tonnage for a six-month period—is showing encouraging results. Records of his organization indicate that merchandise tonnage is increasing as a result of the plan, "although slowly and not as much as we would like to see it."

To give added impetus to the lcl experiment, Mr. Griffith proposed establishment of a dual committee of NSSTC members and railroad traffic officers, to meet next month to "discuss the possibility of publicizing lcl traffic and to determine whether a concentrated program of publicity and advertising in trade journals could not be launched by August or September." Action on the suggestion was to be taken by mail vote.

The executive committee of the small shippers organization, in closing a two-

day conference, resolved that: (1) The conference go on record to support efforts of rail carriers to improve their service on merchandise traffic by adoption of volume rates on lcl shipments of 5,000 lb and over; and (2) the conference and its members aid, assist and support railroads to eliminate "key point" restrictions from present and future certificates, and to procure additional motor carrier rights.

## Competitive Transport

### CAB Examiners Recommend Trimming Non-Skeds

The ranks of the non-scheduled airlines would be trimmed by elimination of 27 lines from operation if the Civil Aeronautics Board adopts the recommendations of two CAB examiners.

In an investigation of all matters pertaining to irregular air carriers, the examiners recommended that a special category of "large supplemental air carriers" be established. They would limit certification within this category to 33 of the 60 large non-scheduled airlines now in operation.

The carriers in the new category would be limited to "supplemental and additional air transportation as distinguished from the service rendered by the regularly certificated air carriers." The examiners found that "it would be inconsistent with the public interest" to authorize 27 carriers to participate in this type service and recommended that their applications for continued authorization to operate be denied.

## Railroads Need Three Freedoms, Says Loomis

Railroads should be free to meet competition on an equal basis, free to supplement their service by engaging in other forms of transportation, and free to price their service subject only to a requirement that their rates cover out-of-pocket costs and make some added contribution to overhead costs, Daniel P. Loomis, chairman of the Association of Western Railways, declared in a recent Chicago address.

"On Receiving End"—That railroads "have long been on the receiving end of the most selective kind of rate-cutting from carriers by motor vehicle and water" was his answer "to the objection" that pricing freedom "would permit selective rate cutting by railroads." Railroads, he added, want to be relieved from "rigidity" where "their inherent advantages of cost make it in the public interest." Such relief, he said, quoting President William T. Faricy of the Association of American Railroads, would be neither "unreasonable" nor "monopolistic," but "just common sense."

(Continued on page 61)

210M-10-11-1954A

FRISCO

Form 354

NORTHERN DIVISION

1

AFTON SUB-DIV.

3

DATE \_\_\_\_\_

CAR No. & INIT. \_\_\_\_\_

CONTENTS \_\_\_\_\_

TONS \_\_\_\_\_

DEST'N \_\_\_\_\_

TRAIN No. \_\_\_\_\_

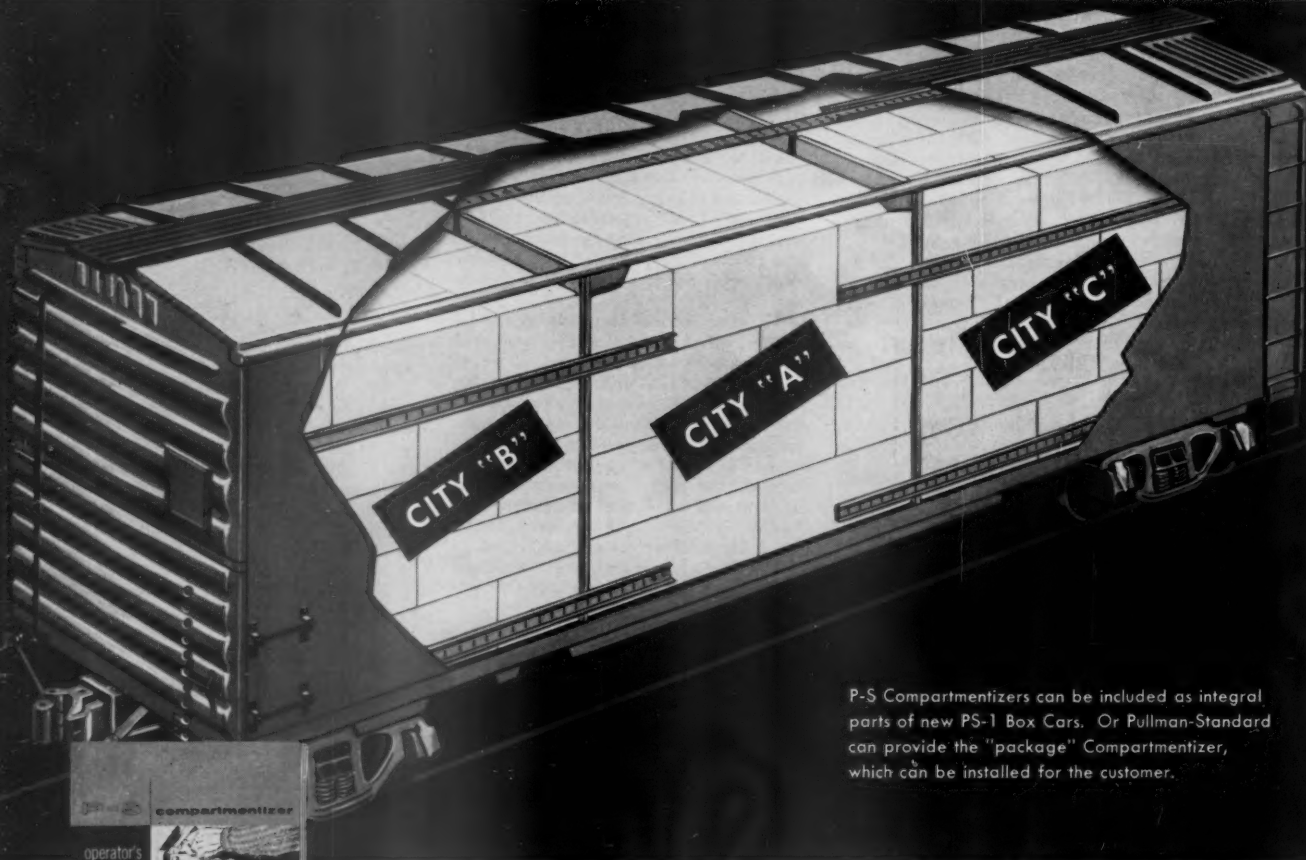
A SIMPLE BLACK DOT is helping the Frisco's damage-prevention program. The dot, stamped on destination cards of cars containing easily damaged commodities, helps warn switchmen that such cars require careful handling. Since the men must read the cards to determine destination, they can then take necessary precautions.



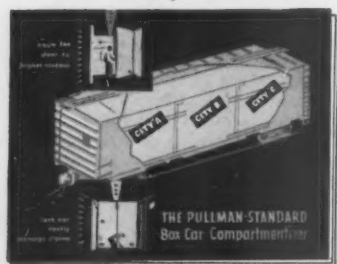
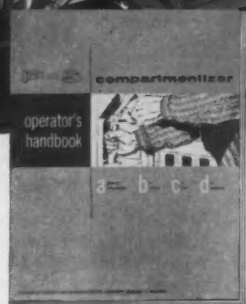
**NOW**

# P-S Compartmentizer

- Protects lading, reduces damage claims.
- Speeds handling, prevents pilfering and mix-up.
- Builds freight traffic revenues.



P-S Compartmentizers can be included as integral parts of new PS-1 Box Cars. Or Pullman-Standard can provide the "package" Compartmentizer, which can be installed for the customer.



The P-S Compartmentizer is proving to exert powerful control over the lading damage frequency and severity claims that cost railroads more than \$111,000,000 a year. And this new device has ranged itself alongside the other Pullman-Standard lading damage prevention products—the Cushion Underframe and the Lading Strap Anchor—that are successfully safeguarding shipments all along the roads of the Great American Railway System.

The P-S Compartmentizer offers added benefits to railroads and shippers. Examples? Its two pairs of rugged steel gates can be used to lock in and segregate lading, preventing pilfering, mix-up and error. A consignment destined for City "A" can be

handled without disturbing shipments to Cities "B" and "C". And the Compartmentizer speeds handling and protects lading for Full Car Load, LCL or Stop-off. Mobility of the gates allows positioning tight against the face of the load, reducing needs for costly dunnage. And the device allows many shippers to fill box cars to the roof for up to 15,000 lbs. added volume.

Thus, one of the P-S Compartmentizer's most outstanding advantages is its ability to earn shipper preference and build added freight traffic revenues.

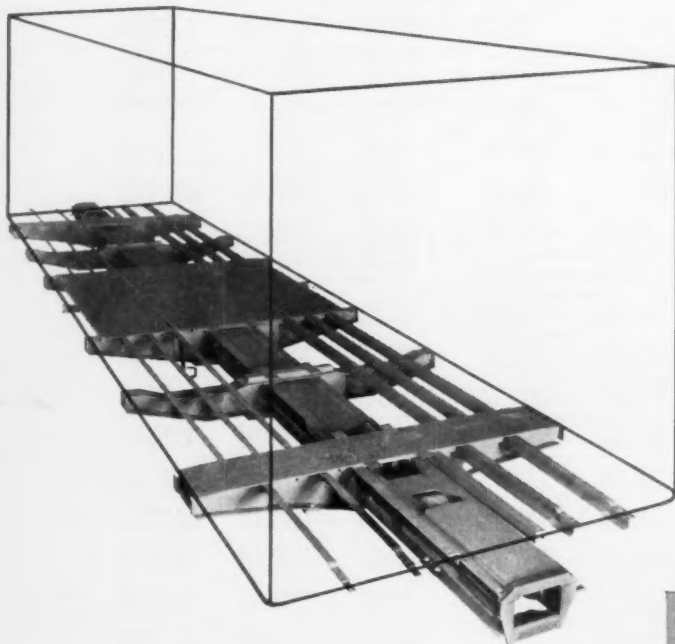
Pullman-Standard has prepared detailed literature on the Compartmentizer. Write for your copies. A Sales Representative will call for a personal discussion, if you wish.



**NOW**

# P-S Cushion Underframe

- Protects *both* car and lading.
- Dampens shocks, even under "collision" impacts.
- Low cost and maintenance. Builds high revenue.

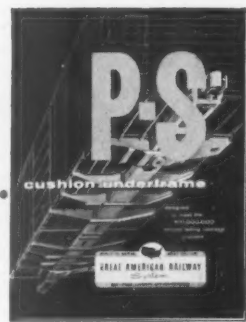
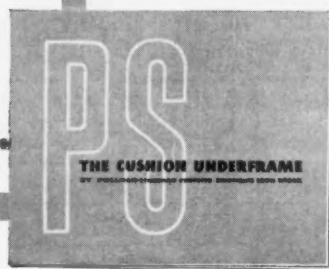


Offering more cushioning capacity than any other device on the market, the P-S Cushion Underframe is proving its ability to perform important damage prevention functions for both the car and its lading.

The P-S Cushion Underframe is now serving or on order in 547 box cars on 10 lading damage prevention conscious roads of the Great American Railway System.

The Cushion Underframe is designed to utilize the sliding sill principle with a built-up rubber cushion mechanism at the center of the car. After conventional draft gears reach their capacity under about 5 mph impacts the Cushion Underframe takes over the shock dampening job. In-service and laboratory tests are proving the P-S Cushion Underframe gives important protection to both car and lading even at "collision" level impacts of up to 10 mph.

We would like to provide you with complete details on this important lading and rolling stock saving device. Write for informative literature. If you prefer, a qualified Sales Representative will call for a personal discussion.



YOUR NEEDS CREATE THE PULLMAN "STANDARD"

# PULLMAN-STANDARD

**CAR MANUFACTURING COMPANY**

SUBSIDIARY OF PULLMAN INCORPORATED

79 EAST ADAMS STREET, CHICAGO 3, ILLINOIS

BIRMINGHAM, PITTSBURGH, NEW YORK, SAN FRANCISCO, WASHINGTON

# ANNUAL REPORTS

Railroad		Operating Revenues	Operating Expenses	Fixed Charges	Net Income	Current Assets*	Current Liabilities*	Long Term Debt*
Akron, Canton & Youngstown.....	1954	\$5,093,295	\$4,060,980	\$ 174,577	\$ 334,376	\$2,280,122	\$1,140,769	\$4,372,195
	1953	6,291,763	4,154,577	189,845	771,866	2,689,938	1,593,815	4,605,730
Baltimore & Ohio.....	1954	378,088,686	311,502,590	17,858,942	14,528,788	101,002,994	62,316,997	543,125,375
	1953	460,848,985	366,066,148	18,443,307	28,032,933	120,142,480	75,505,195	587,066,469
Bangor & Aroostook.....	1954	12,238,911	10,090,456	873,818	705,248	6,448,124	1,346,461	25,913,315
	1953	12,972,171	10,232,795	785,703	1,043,973	4,772,865	1,670,170	20,751,030
Boston & Maine.....	1954	81,232,990	69,298,126	3,033,138	1,232,009d	26,541,823	14,087,521	93,547,736
	1953	88,871,370	71,599,176	3,019,365	721,505	30,724,635	16,913,002	88,401,807
Canadian National.....	1954	640,637,280	626,465,374	39,527,264	28,758,098d	202,342,939	81,058,764	972,969,596
	1953	696,622,451	659,049,086	29,376,160	244,017	185,181,199	98,294,826	589,811,690
Central of Georgia.....	1954	40,020,822	32,576,266	1,187,227	2,893,649	13,905,278	7,107,721	47,293,306
	1953	49,915,663	34,525,365	917,134	2,856,768	14,025,931	7,230,139	46,470,527
Chesapeake & Ohio.....	1954	304,517,563	225,486,954	13,087,776	39,909,850	93,085,233	52,827,492	371,703,434
	1953	344,048,870	248,497,937	13,397,845	48,068,635	88,224,780	64,441,877	395,924,969
Chicago & Western Indiana.....	1954	#	#	2,736,322	140,172d	3,409,584	2,685,188	83,648,690
	1953	#	#	2,785,402	85,252d	3,486,329	2,137,848	83,638,920
Chicago, Rock Island & Pacific.....	1954	187,062,645	141,604,751	3,145,099	18,669,137	57,614,268	31,645,112	97,788,751
	1953	207,955,341	147,336,899	3,304,742	25,912,086	65,091,976	42,916,467	100,422,460
Delaware & Hudson.....	1954	49,082,792	39,352,459	2,155,534	3,567,848	23,826,907	4,653,851	90,095,871
	1953	55,256,873	41,834,044	2,312,154	6,382,333	21,542,380	4,596,513	95,090,319
Delaware, Lackawanna & Western ..	1954	78,614,609	65,032,301	4,751,591	3,801,371	29,857,569	8,469,773	132,509,313
	1953	89,649,655	69,533,473	4,923,526	6,651,878	30,200,912	10,098,811	132,663,931
Erie.....	1954	152,086,511	124,261,778	5,111,130	3,842,155	35,704,146	20,586,880	195,149,983
	1953	181,505,236	136,382,758	5,184,393	8,168,984	45,029,073	33,812,250	196,125,268
Elgin, Joliet & Eastern.....	1954	43,231,911	35,192,514	587,925	1,977,472	9,549,638	12,077,830	17,809,600
	1953	55,321,510	43,703,378	611,323	2,889,151	15,934,859	19,935,798	18,846,400
Fonda, Johnstown & Gloversville....	1954	702,944	792,270	7,441	86,807d	298,275	142,754	929,825
	1953	851,255	888,124	9,000	32,180d	326,546	165,697	945,350
Georgia & Florida.....	1954	3,327,989	2,996,269	1,039,859	1,138,325d	624,715	2,395,512	10,368,298
	1953	3,885,597	3,213,835	988,478	871,624d	914,819	2,769,629	9,807,875
Gulf, Mobile & Ohio.....	1954	81,178,887	60,372,864	1,651,058	6,084,753	40,181,823	26,554,110	69,662,304
	1953	93,633,442	66,432,895	1,666,994	7,904,798	44,579,370	32,356,764	73,185,799
Illinois Central.....	1954	275,959,490	209,009,842	8,013,932	22,014,194	91,976,117	54,670,466	188,629,000
	1953	308,373,591	221,014,300	8,631,835	26,369,081	111,413,450	73,655,961	193,468,000
Jersey Central Lines.....	1954	56,502,122	44,957,435	4,513,698	14,584	17,140,357	9,026,018	68,577,771
	1953	62,796,534	50,424,452	4,457,422	1,220,281	17,175,936	8,445,923	69,728,001
Lehigh & New England.....	1954	6,805,340	5,598,399	221,758	829,252	2,982,336	2,145,624	7,419,464
	1953	8,120,364	5,720,588	225,812	1,492,732	2,943,596	2,571,036	8,011,052
Lehigh Valley.....	1954	65,594,325	54,383,517	3,099,608	2,638,920	20,539,215	7,990,845	88,669,614
	1953	76,338,798	59,138,933	3,285,065	6,970,629	23,005,107	12,272,772	100,843,490
New York, New Haven & Hartford..	1954	149,986,923	121,470,321	6,181,172	8,020,432	36,564,984	30,789,244	143,767,400
	1953	165,029,092	132,973,431	6,355,197	5,045,451	32,420,630	32,001,861	144,183,400
New York, Ontario & Western.....	1954	5,903,042	6,187,281	1,480,057	3,086,184d	894,365	10,063,768	37,986,291
	1953	7,063,332	6,478,242	1,496,207	2,234,827d	1,027,503	8,589,097	38,317,401
New York, Susquehanna & Western..	1954	5,873,781	4,303,278	404,591	45,985	3,691,699	3,189,773	9,169,552
	1953	5,811,462	4,312,021	536,102	69,258d	3,352,465	2,495,515	9,425,977
Northern Pacific.....	1954	171,601,843	142,677,265	10,450,579	14,358,045	67,793,329	39,611,327	272,034,101
	1953	181,174,913	146,833,939	10,002,945	15,539,177	69,567,896	38,731,990	263,676,380
Pennsylvania System.....	1954	849,796,028	713,878,410	42,837,542	28,259,519	277,707,354	120,776,802	1,032,920,879
	1953†	1,072,452,888	865,789,303	43,997,172	47,254,664	295,185,337	137,442,805	1,085,312,196
Peoria & Eastern.....	1954	6,255,558	4,237,241	261,090	778,600	1,159,447	180,760	9,906,700
	1953	7,013,441	4,329,604	283,769	1,274,386	1,562,511	172,360	9,857,200
Pittsburgh & West Virginia.....	1954	7,306,161	5,844,913	467,582	852,758	4,307,322	1,187,490	11,765,500
	1953	8,984,016	6,844,560	510,408	965,743	4,882,845	1,733,237	12,558,084
Reading.....	1954	109,486,090	86,652,552	5,692,014	9,189,566	32,824,041	19,101,982	130,970,284
	1953	132,825,608	103,256,539	5,836,326	12,481,217	34,672,289	26,149,433	137,155,152
St. Louis-San Francisco.....	1954	125,674,636	99,460,959	4,219,069	7,641,074	43,048,678	25,085,340	139,676,294
	1953	140,925,194	103,847,498	4,006,181	12,261,164	60,381,227	33,641,599	137,505,520
Seaboard Air Line.....	1954	149,472,568	109,128,668	3,856,758	20,132,570	56,419,761	25,921,337	114,368,000
	1953	156,643,985	112,836,072	3,943,448	20,907,833	58,637,224	30,254,150	116,727,000
Southern.....	1954	249,079,701	176,101,145	13,465,146	26,262,680	133,044,029	69,700,123	277,048,270
	1953	275,212,345	186,399,730	13,201,933	33,190,324	138,756,693	79,225,057	274,329,129
Southern Pacific Transportation System.....	1954	626,214,435	500,811,910	20,812,130	44,354,785	203,730,790	102,826,584	635,515,666
	1953	692,085,110	525,941,845	20,253,846	57,922,316	226,959,751	127,309,217	631,221,017
Texas & Pacific.....	1954	77,801,008	56,966,658	3,022,834	7,238,522	33,887,559	11,864,877	74,301,857
	1953	86,485,104	59,568,115	3,153,138	11,030,409	35,622,893	14,047,272	76,199,163
Toledo, Peoria & Western.....	1954	6,806,211	4,466,117	71,747	641,168	3,024,497	1,995,254	7,885,698
	1953	7,750,827	4,623,807	72,609	834,763	3,088,446	2,426,838	1,852,860
Union Pacific.....	1954	481,786,451	365,858,879	5,016,564	69,622,665	209,958,910	116,684,350	192,795,977
	1953	530,024,299	400,427,364	4,998,646	70,430,213	229,487,140	121,696,590	184,843,392
Wabash.....	1954	109,921,583	84,502,470	2,584,300	9,566,983	30,737,181	19,007,996	94,880,039
	1953	122,210,124	88,784,197	2,593,264	10,733,602	37,036,545	27,502,471	98,524,194

\* On December 31.

d Deficit.

† Absorbed by joint facility account.

† 1953 figures restated to reflect accounting changes adopted in 1954.

## Questions

## and Answers FOR THE TRANSPORTATION DEPARTMENT

It is generally agreed that it is desirable to cut down the time freight cars spend in yards and terminals. It has been suggested that one way to accomplish this objective would be to cut down on time spent in inspecting journal boxes. Specifically, some people have said that journal boxes need not be inspected at every terminal through which a car passes. A thorough inspection at the originating (or, in the case of interline freight, the receiving) terminal is enough, they suggest. What is the practice on your road?

[This question was suggested by a discussion recorded in the Proceedings of the 1954 meeting of the American Association of Railroad Superintendents. Two answers to it were carried in this space on March 28.]

CONDUCTED BY G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

### **L&N—Boxes inspected, but serviced only when necessary.**

"Up to about a year ago we inspected and serviced journal boxes of all freight train cars [in trains] in each terminal where engine crews were changed. Our procedure now is to have all journal boxes inspected at each of the terminals. However, on through cars we do not service, i.e., work the packing down in the boxes, unless the inspector feels that this should be done.

[Italics mine—G.C.R.] If the inspector finds a box with the packing dry or considerably disarranged he leaves the box lid open. This is an indication to the oiler that the box must be serviced.

"All boxes are completely serviced at the originating terminal."—J. F. Ryan, superintendent machinery, Louisville & Nashville.

### **NYC—Finds lubricators helpful.**

"Among the numerous fast freights we run daily there are approximately 12 trains each 24-hour period which, other than their respective identifying symbols, are known as 'solids.' Such trains are initially grouped at the originating point for handling intact to the final terminal, the intermediate distance varying from 400 to 700 mi. Occasionally blocks of cars are added or removed at intermediate terminals, the doubling being done with the handling of the caboose or during the time of power change. In the majority of cases the diesels run through. The yard time allotted is generally 10 minutes and such trains run through without inspection of journal boxes, after

leaving the first terminal, to the final destination.

"The packing itself is a most important feature and substitutes for waste packs certainly merit consideration and tests. We have several hundred 'captive' freight cars in system service and in this equipment we are using various types of lubricators, with gratifying results. Three hundred of these cars running in two of the aforementioned trains have been in service for about two years and we have had only four hot journals during this period, none of which could be attributed to . . . [lubricators]."—W. B. Salter, general superintendent, New York Central, Syracuse, N. Y.

### **GN—Practice varies seasonally.**

"At our originating terminals for through freight trains, every journal box on every car is inspected, the packing is set up if disturbed, and free oil, approximately four ounces, is added to each box. At intermediate terminals the box lids are opened to check journals for evidence of heating, and packing is set up if disturbed. However, no free oil is added at intermediate terminals. (See exception below.) Cars which are added to through freight trains at intermediate terminals are spooned out and oiled prior to being placed in the train.

"During the extreme heat of summer months, when our hot boxes are at their peak, we free-oil all through freight trains at Havre, Mont., which is the halfway point for eastbound and westbound trains. During the extreme cold of winter, when our hot boxes again begin to climb, due to packing freezing and rolling, we put

on additional oilers at Minot, N.D., Havre, and Whitefish, Mont., to set up the rolled packing on all freights. The extra attention given to journals during the extreme heat of summer and the extreme cold of winter helps us to get our freights over the system with the minimum number of hot boxes.

"I might add that during winter months we use an oil which has a low viscosity index, and which pours more freely during below-freezing weather than the regular AAR car oil. In spring, summer and fall, we do use the regular AAR specification car oil for free oiling of journal boxes. We have found that use of this low viscosity oil during winter months has reduced our hot boxes over the time we were using AAR regular car oil for free oiling during winter months."—J. F. Likarish, master car builder, Great Northern.

Quite a few answers have been received to the car service "quiz" run in this space March 14. This was intended as a foolproof "one right

answer" quiz. But several readers have shown that there are at least two correct answers involving two of the cars. Get your answers in!—G.C.R.

# Electro-Motive adds a New Factory —in Salt Lake City



EMERYVILLE, CALIF.



LOS ANGELES, CALIF.



SALT LAKE CITY, UTAH

\*FORT WORTH,

**T**HE seventh in Electro-Motive's nationwide network of Factory Branches is now ready to serve railroads in the Salt Lake City area.

This new facility is completely equipped to remanufacture and modernize Diesel locomotive components with the same techniques and precision standards employed at our main plant.

Machines and tools used by Electro-Motive represent a tremendous investment. They are specially designed to meet high production demand with close dimensional accuracy. Operated by skilled workmen, they assure highest quality rebuilds at lower cost with less out-of-service time.

Each Electro-Motive Branch maintains stocks of rebuilt Diesel locomotive components for *immediate* shipment on "Unit Exchange." Every assembly remanufactured for stock incorporates all the latest engineering improvements. In fact, "Unit Exchange" components often carry *double* the warranty they had when new.

Addition of this new Factory Branch in Salt Lake is another step in Electro-Motive's continuing "Unit Exchange" program to keep pace with the growing needs of America's railroads.

This service not only saves money for our customers—it helps keep General Motors locomotives "on the go" for life!



\*MINNEAPOLIS,  
MINN.

## Branch

LA GRANGE, ILL.



ROBERTSON, MO.

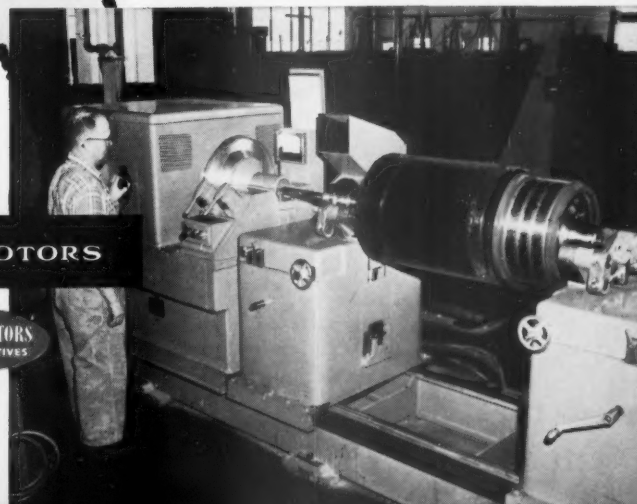
TEXAS

HALETHORPE, MD.



JACKSONVILLE, FLA.

**Production-Line Rebuilds**—Traction motor rewind line at new Salt Lake City Branch demonstrates the advantages of volume rebuilding. Armatures are rewound on a station-by-station basis, using latest factory mass-production jigs, fixtures and tools. Even more important, latest design improvements and new longer-life materials are automatically incorporated in every Electro-Motive rebuild to bring it to the same performance standards as current models. *Illustration shows traction motor armature balancing.*



## ELECTRO-MOTIVE DIVISION • GENERAL MOTORS

*La Grange, Illinois • Home of the Diesel Locomotive*

*Nine Regional Warehouses and Factory Branches to serve you:*

La Grange, Ill. • Emeryville, Calif. • Halethorpe, Md.  
Jacksonville, Fla. • Los Angeles, Calif. • Robertson, Mo.  
Salt Lake City, Utah • \*Fort Worth, Texas • \*Minneapolis, Minn.  
\*Parts Warehouses

GENERAL MOTORS  
LOCOMOTIVES

# Can You Answer these 8 Questions on Train Operation?

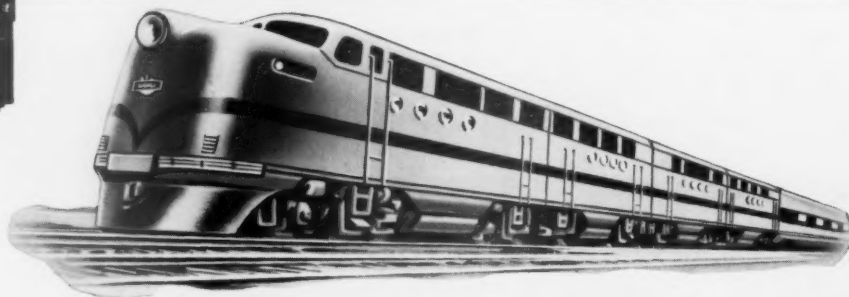
	YES	NO
1. Do you have a really good "yardstick" for establishing standards for each train — both passenger and freight?	<input type="checkbox"/>	<input type="checkbox"/>
2. Can you quickly show each crew how to make a particular run for best EFFICIENCY, SPEED, and SAFETY?	<input type="checkbox"/>	<input type="checkbox"/>
3. Do you have an accurate, easy method available for figuring out improvements possible in schedules?	<input type="checkbox"/>	<input type="checkbox"/>
4. Are you able to get the facts you need to analyze and clear up persistent traffic "bottle-necks"?	<input type="checkbox"/>	<input type="checkbox"/>
5. Do you know about all emergency stops made by your trains?	<input type="checkbox"/>	<input type="checkbox"/>
6. Is a means readily available on your railroad for checking on speeds of trains on curves, excessive braking, drive wheel slippage, and other facts?	<input type="checkbox"/>	<input type="checkbox"/>
7. In case of a DAMAGE SUIT involving one of your trains, do you have a permanent record (legally acceptable) showing location, speed, stops, acknowledgment of signals, etc.?	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you have a daily record of whether your train schedules, crew performance and special instructions are being maintained at a consistently high level?	<input type="checkbox"/>	<input type="checkbox"/>



IF you want to change "NO" answers to "YES", it will pay you to get in touch with Barco immediately. Barco provides not only mechanical equipment, but most important: A simple, practical, and *economical system* for obtaining and using everyday operating facts to save and earn more money from train operation. This is a new and important story — WRITE FOR IT TODAY. BARCO MANUFACTURING CO., 501E Hough St., Barrington, Illinois.

## The BARCO RECORDER

*An Inexpensive System for Helping Railroads  
Earn More from Train Operation*





\* New UP dining car—operated with kitchen-dormitory car as a two-car unit.

# *Congratulations to the UP* **ON ITS NEW PASSENGER EQUIPMENT**



The Union Pacific is providing new standards of travel pleasure, comfort and safety for its patrons on "The Challenger" and other trains in its crack passenger fleet.

New York "HSC" air brake equipment is provided on a large number of these modern aluminum alloy cars built by ACF Industries. It is a source of pride to us that the uniform-acting electro-pneumatic brake system supplied by New York Air Brake Co. will make an important contribution to running efficiency and passenger comfort on the UP.

**THE NEW YORK AIR BRAKE COMPANY**

230 PARK AVENUE • NEW YORK 17, N. Y.



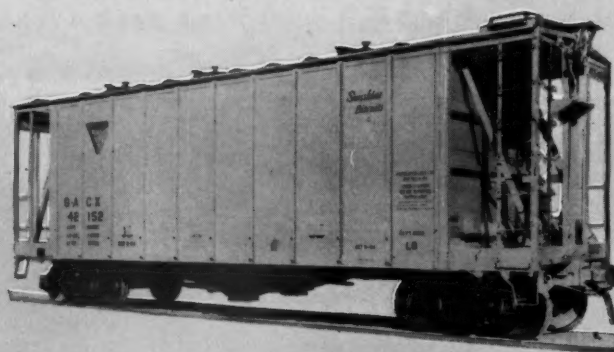
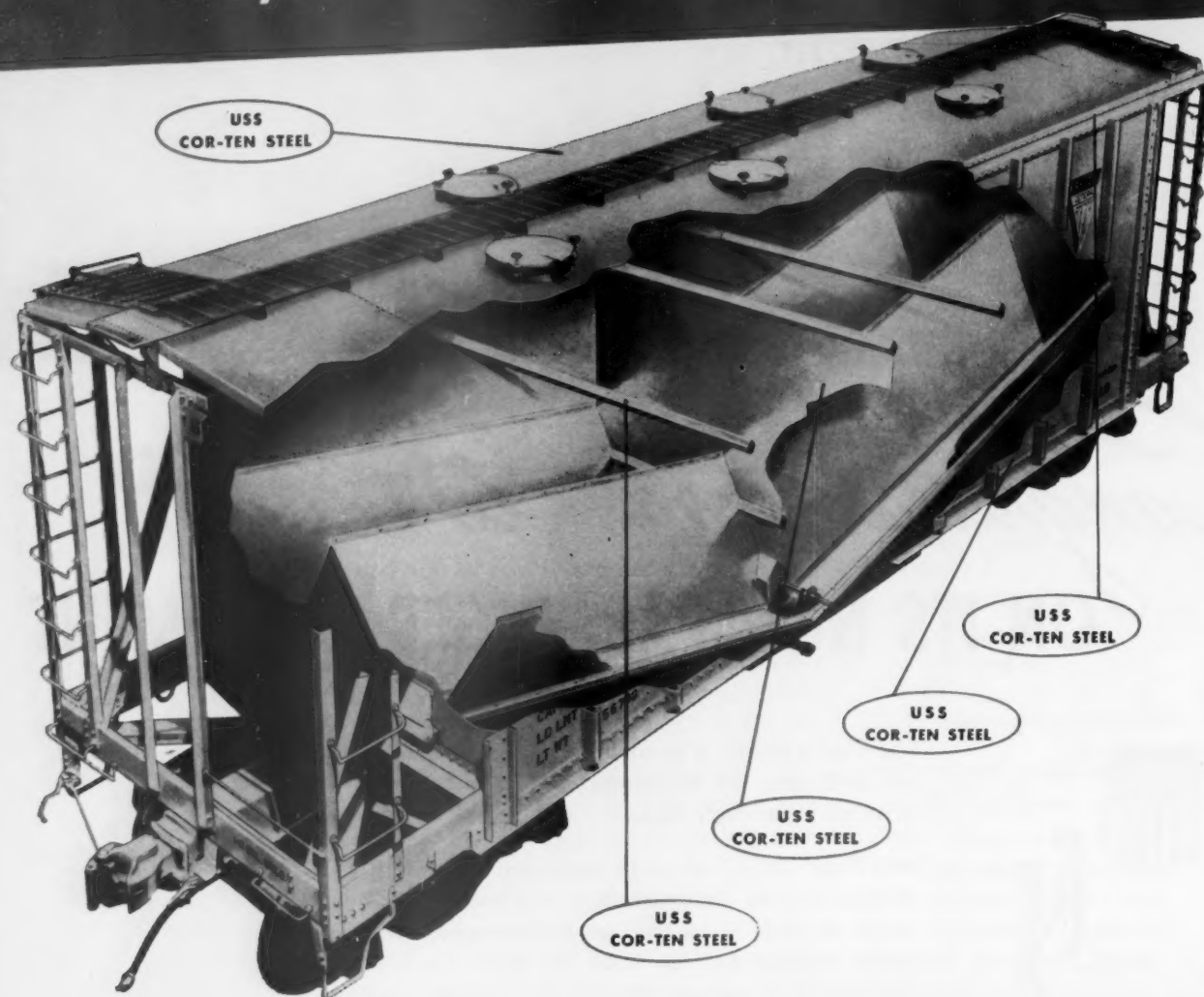
\* Kitchen-dormitory car as it appears connected with dining car.







# 190,000 freight cars have been built



## USS HIGH STRENGTH STEEL

# better with USS COR-TEN Steel since 1933

## In General American's new AIRSLIDE<sup>®</sup> cars **USS COR-TEN Steel** was selected to minimize corrosion and keep maintenance costs low

The increased demand by shippers of dry, granular, and powdered bulk materials for a special car that would protect the lading and be easier to unload has been answered by the General American Transportation Corporation, Chicago. It's the new AIRSLIDE Covered Hopper Car.

How well the AIRSLIDE car fills the bill can be deduced from the fact that since its introduction less than two years ago, more than 600 are today in service or on order.

Shippers who hitherto have not found bulk handling feasible are now using these cars and are realizing substantial savings in container, dunnage and labor costs. Improved sanitation and reduced damage from contamination are additional advantages these shippers appreciate.

To solve the difficult problem of high-speed unloading, the GATX engineers have utilized the Fuller\* Airslide principle by which the lading is aerated and fluidized, causing it to flow like water to the double hopper doors.

They selected USS Cor-TEN Steel for car construction for two reasons: (1) to obtain high strength with no increase in weight, and (2) to reduce interior corrosion, caused by condensation, to a minimum.

USS Cor-TEN Steel's high yield point of 50,000 psi. and its high resistance to atmospheric corrosion, 4 to 6 times that of carbon steel, made it a logical choice on both counts.

Cor-TEN Steel's high corrosion resistance plus the fact that paint adheres more tightly to it are further assurance that these AIRSLIDE cars will maintain their attractive appearance longer and will better resist the attack of atmospheric corrosion both inside and outside.

By combining a unique car design with superior Cor-TEN Steel construction, the builders of the AIRSLIDE car have made available to shippers an efficient means for transporting commodities never successfully handled in bulk before—and a car that can be confidently counted on to render long time service with the least amount of maintenance.

Find out how readily USS Cor-TEN High Strength Steel can be adapted to your designs. Our engineers who pioneered its application in freight equipment of every type can place at your disposal an unequalled experience in its use that cannot fail to be helpful. We welcome your inquiries, and the opportunity to work with you.

(\*The Fuller Company: A subsidiary of General American Transportation Corporation.)

See "THE UNITED STATES STEEL HOUR"—Televised alternate weeks—Consult your newspaper for time and station.

UNITED STATES STEEL CORPORATION, PITTSBURGH • AMERICAN STEEL & WIRE DIVISION, CLEVELAND • COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO  
NATIONAL TUBE DIVISION, PITTSBURGH • TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA. • UNITED STATES STEEL SUPPLY DIVISION, WAREHOUSE DISTRIBUTORS  
UNITED STATES STEEL EXPORT COMPANY, NEW YORK



# UNITED STATES STEEL



# 87 world's

*Result of intensive study by Magor and Orinoco Engineers . . .*



These ore cars utilize the best features of existing ore cars, with a number of innovations and improvements for service on the Orinoco. ASF Ride-Control Trucks, Bolsters, Simplex Brakes and Type "F" Interlocking Couplers are standard equipment.





**They've found the answers to some problems  
that are unique in railroading... on**

# **miles of the toughest main line!**

• To fully appreciate what "Orinoco" means to railroading, you'd have to run a 15-thousand-ton train through 87 miles of rough terrain involving a 3% grade. That, in brief, describes United States Steel's engineering feat that stretches from the Orinoco mine face to the Puerto Ordaz docks in Venezuela.

Hauling heavy loads under these conditions calls for unusually rugged ore cars. Magor Car Corporation is providing the answer: cars that are designed to take extreme punishment—*almost continuously*. Otherwise, repairs would run costs sky-high in an area with restricted

maintenance opportunities.

Smooth-riding ASF Ride-Control Trucks mean less damage to the cars and roadbed. ASF Simplex Clasp Brakes ease the loaded cars down the grade, and ASF Type "F" Interlocking Couplers provide the needed additional strength and protection against accidental train partings.

It's a source of pride that ASF was selected to furnish the basic running gear, of course. The problems of the Orinoco were a challenge to the best we had to offer. Helping to solve them is the kind of experience that keeps ASF in step with progressive railroading.

## **AMERICAN STEEL FOUNDRIES**

410 N. Michigan Avenue, Chicago 11, Illinois

Canadian Sales: International Equipment Co., Ltd., Montreal 1, Quebec

# ASF

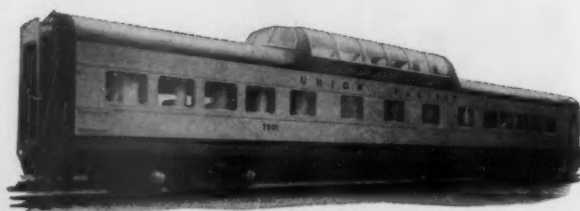
*World's largest builders of  
railroad running gear*



# NEW CARS BY A C F OFFER TO UNION PACIFIC

ON THE "CHALLENGER DOMELINER," THE "CITY OF PORTLAND"

Chosen to provide genuine comfort and trouble-free service, Heywood-Wakefield seating was installed throughout these modern trains. As attractive as they are functional, these new cars are among many recently designed and built by A C F Industries Incorporated and seated by Heywood-Wakefield to maintain Union Pacific's high standards for passenger travel.



## NEW DOME SETTEE

A highlight in comfort is found in these specially designed chairs. Spacious and smartly styled, Heywood Dome Settees were installed on the observation upper levels of the dome cars on each of the trains. Notice how they are angled for viewing pleasure.

*The lower level of the dome cars is furnished with Heywood Leg Rest seats. Maximum comfort is assured by ample spacing and Heywood's adjustable leg rest.*



# LUXURIOUS COMFORT PASSENGERS

AND THE "CITY OF LOS ANGELES"



*Interior of one of the thirty regular coaches furnished with Heywood Leg Rest seats, model 830, which allow the passenger to stretch out, relax and enjoy his trip.*

★ ★ ★

Your Heywood representative will be happy to give you complete details of the many seats and sleeping units available to bring the ultimate in modern comfort to your own passengers.

## HEYWOOD-WAKEFIELD

Transportation Division, Gardner, Mass.; Orillia, Ontario, Canada

In Canada: Railway & Power Engineering Corp., Ltd.





**HOLLAND**

# *Long-Travel*

**unit snubber spring**



**T**HE Holland STYLE E-2 Volute Snubber Spring has 2½" travel and gives ample protection to lading and car structures when used with A.A.R. 2½" long-travel coil springs.

The Holland STYLE E-2 Volute Snubber Spring is applied in old conventional A.A.R. or self-aligning trucks along with new coil springs (2½" travel) to improve riding quality as shown by tests conducted by A.A.R. during 1948-50.

Write for Bulletin #15 describing in detail the Unit Snubber.

## **HOLLAND COMPANY**

313 South Michigan Avenue • Chicago 4, Illinois

## Current Publications

### PERIODICAL ARTICLES

THE MCGINNIS EXPRESS, by Duncan Norton-Taylor. *Fortune*, April 1955, pp. 146 et seq. Time Inc., 9 Rockefeller plaza, New York 20.

Where is Patrick McGinnis going, and where is he going to stop? Here is a fast running look at a man on a fast run—the Wall Street analyst who took the New Haven Railroad away from the Dumaines.

THE TROUBLE WITH SITTING DOWN, by Robert M. Yoder. *The Saturday Evening Post*, March 19, 1955, p. 17 et seq. Curtis Publishing Company, Independence sq., Philadelphia 5. Single copies, 15¢.

The seemingly simple business of sitting—our greatest single activity, and a billion-dollar-a-year industry—involves many a headache. Mr. Yoder discusses the numerous changes that have taken place in seating, and the research that has been done in the effort to achieve the perfect seat. Outstanding in this research activity was a special survey conducted by the Heywood-Wakefield Company, Gardner, Mass., and the late Ernest Hooten, of Harvard, to develop a better railroad seat. Results of their survey were published in 1945 by Harvard University, Department of Anthropology, in a book entitled "A Survey in Seating."

RAILWAYS IN THE RED, by Colm Brogan. *The Freeman*, April 1955, pp. 415-417. Irvington-on-Hudson, N.Y. Single copies, 50¢.

How state operation has turned "Our Railways" into an unhappy joke for the British people, Mr. Brogan devotes the major part of his article to a discussion of employees, wages, "redundancy" [featherbedding, to Americans], strike threats, and the inefficiency which nationalization has produced.

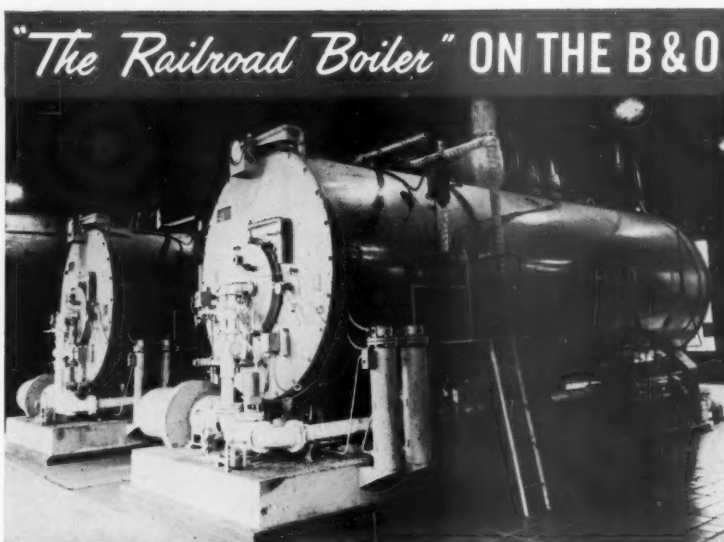
DINING CAR SANITATION IN THE UNITED STATES, by William H. Megonnel and Edmund C. Garthe. *Public Health Reports*, January 1955, pages 25-34. Issued as Reprint No. 3252, Volume 70, No. 1. U. S. Department of Health, Education and Welfare, Public Health Service, Washington 25, D.C. Free.

Outlines the part played by the Public Health Service in preserving the health of the rail traveling public.

### BROCHURE

OUR PRODUCTS AT WORK. 17 pages, illustrations. American Brake Shoe Company, 230 Park ave., New York-17. Free.

Beginning with products for railroads—Brake Shoe's first and largest customers—this brochure illustrates products made for the steel, machinery, automotive, mining, construction, aircraft and other industries.



# 27

## AMESTEAM BOILERS

### Multiply the Savings On the B&O

Spearheaded by two 600 hp. boilers at the Du Bois Shops (shown above) the Baltimore & Ohio has 27 AMESTEAM Generators placed at strategic points on the system. These low-cost heat producers are providing important economies not only for the B&O but also for many other roads, both large and small, here and abroad.

Completely automatic, "The Railroad Boiler" provides an un-failing supply of dependable heat and process steam at better than 80% thermal efficiency (guaranteed). It handles No. 6 oil with ease. This modern package boiler—A.S.M.E. and Underwriters-approved—is available in single units from 10 to 600 hp. Design pressure—15 to 200 lbs. Higher pressures on special order.

Just out! A bulletin listing AMESTEAM installations here and abroad — with complete road-by-road data as to hp., pressures, and fuel used. *Write for a copy.*

Exclusive Distributors to the Railroads

Engineering, Sales and Service

RAILROAD SUPPLY and EQUIPMENT Inc.

CLARKS SUMMIT, PA.

Phone Clarks Summit 6-2611

## SITTING ON TOP OF THE WORLD

Passengers of the Union Pacific can now enjoy these exciting new QCf Dome Coaches, offering the ultimate in luxurious travel at low fares. A powerful stimulant to any passenger service . . . the acquisition of QCf Dome Cars by the Union Pacific is an outstanding example of how a railroad can "cash in" on its natural advantages. In this instance, it is the grandeur and scenic beauty of the great West.

Union Pacific's passengers will get a

"new look" in rail service in other ways, too. Besides acquiring 10 newly designed QCf Dome Coaches, Union Pacific is adding 15 QCf Observation Dome Cars and 10 QCf Double-Deck Dome Diners . . . as part of their order for 132 QCf passenger cars to round out their famous domeliner service.

QCf Industries, Incorporated, New York · Chicago · St. Louis · San Francisco · Cleveland · Philadelphia · Washington · Pittsburgh

# qc*f*

**CAR BUILDERS TO AMERICA'S RAILROADS**





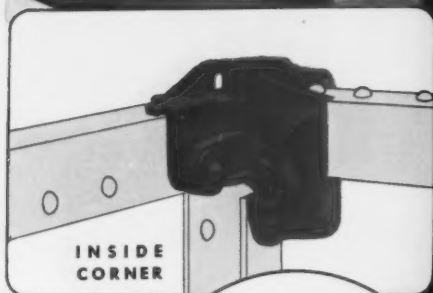


7000





# INTERLOCKED - all ways!



## DROP END LOCKS

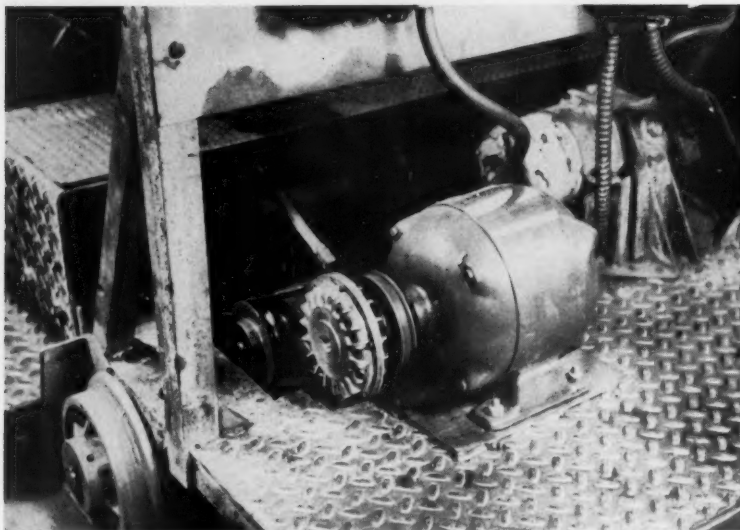
**KEEP CORNERS FROM SPREADING • WON'T ACCIDENTLY OPEN**

The Wine Drop End Lock has an unequalled record for continuous service with minimum maintenance. Progressive developments include the addition of a pry-bar opening to facilitate easier drop end closing, even when the car structure is distorted from hard service.

The 3-way interlocking feature assures positive closure and retains the end and sides in their original relative position by preventing the sides from spreading at the corners. Equipped with the Wine Drop End Balancer in combination, one man closure of the heaviest drop ends is safe, fast and economical.

**THE WINE RAILWAY APPLIANCE CO. TOLEDO 9, OHIO**

## What's New in Products



FOUNDry cart equipped with Flexidyne.

### A Dry "Fluid Drive"

Flexidyne, a new development in industrial power transmission described as a dry fluid drive, is based upon a completely new principle. It handles difficult starting and reversing problems, and gives a new kind of protection against shock and overloads. Its major advantages are based on the fact that at normal operating speeds it does not slip.

At the same time, in the case of an overload, it is slippage which gives protection.

Originated in Europe, the new drive has been redesigned to American standards and will be available from stock through regular distributors. Actual delivery dates have not yet been announced.

It is claimed to have wide application for industrial drives involving heavy inertia and shock loads on such equipment as compressors, centrifuges, conveyors, and machines used in metal-working plants.

The Flexidyne drive is made up of a housing, inside which a rotor is free to turn concentrically. Between the two are fine particles of spherical steel shot, called the "flow charge," which acts very much like a fluid. It is the flow charge which transmits power from the housing to the rotor. This flow charge is easy to seal in, has a high density and can stand relatively high temperatures.

The amount of the flow charge determines the torque capacity. Because it is easy to vary the amount of this charge, the Flexidyne will give the

exact starting torque needed for anything from the smoothest to the fastest start.

Accurate overload protection is said to be assured as the Flexidyne can be set to slip at anywhere from as low as a gentle 20 per cent over full load torque to as high as peak motor torque. During starting and overload periods the current draw is at minimum, because with the standard Flexidyne setting the motor reportedly is never pulled down to less than 90 per cent of synchronous speed.

All this is due to Flexidyne's new principle, which produces constant torque for a given input speed, regardless of the percentage of slip between the rotor and the housing (which only occurs during periods of starting or overload).

It is said that, with Flexidyne drive, uniform performance is assured regardless of changes in the surrounding temperature; the Flexidyne has long life and requires practically negligible maintenance.

Aside from low first cost, low maintenance and top efficiency, the device is said to permit use of smaller, cheaper motors and controls, with greatly reduced current demands and improved power factor. Smooth starts and gentler overload protection avoid breakage and reduce maintenance on drives, gears, bearings, and driven machinery.

Each size has a standard horsepower rating and yet in only a matter of minutes the flow charge can be varied to give the exact torque to suit a particular job.

Two lines will be available: (1) Flex-

idyne drives for convenient mounting directly on motor shafts and adapted for Dodge Taper-Lock sheaves, and (2) Flexidyne couplings, with Taper-Lock bushings for use with straight line drives.

First to be offered from stock will be four sizes of Flexidyne drives, rated at 3 to 30 hp at 1,800 rpm. Other sizes will follow. Dodge Manufacturing Company, Mishawaka, Ind. •



### New Type Safety Hat

Geodetic suspension and a pneumatic headband cushion are features of the new Super-Tough safety hats and caps.

The hats are designed with a crown suspension which distributes the force of a blow evenly over a large area of the head, thus minimizing the effect of the blow. The pneumatic headband cushion consists of a series of 12 vinyl plastic air cells located between the sweat band and the shell of the hat.

The headband resists and distributes the impact of lateral blows on the perimeter of the head, the absorption and distribution of the impact being accomplished by the incorporation of small orifices located between the air cells.

When a blow exerts pressure on a given cell, air is forced into the adjoining cells, causing them to expand and hug the head, thus distributing the impact over a large area.

Adjustment for size is accomplished by regulating the amount of air in the pneumatic structure with a self-sealing valve. The shell of the Super-Tough hat is molded of Fiberglas-reinforced resins.

Both hats and caps are available in five colors: yellow, red, green, gray and white. Willson Products, Inc., Reading, Pa. •





New Kem Kold Bild being applied on cars for Delaware, Lackawanna and Western Railroad at the Clifton Works of Magor Car Corporation.

## \*Once over with KEM KOLD BILD<sup>†</sup> does the job of two standard coats!

Now you can cut material and out-of-service costs by eliminating time for drying and application of a second coat. One full coat of Kem Kold Bild does it using conventional spray equipment. Kem Kold Bild dries in 1½ hours, is ready for stenciling in 2 to 3 hours. You get good film flow with a minimum of overspray. And a dry-film thickness as heavy as 2½ mils.

This cold-spray synthetic enamel produces a bright gloss of exceptional durability, too. Withstands re-

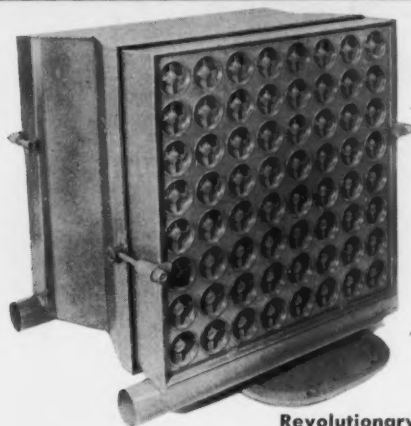
peated cleanings and toughest service. Kem Kold Bild doesn't lift or affect primers. There's no pin-holing or bubbling from entrapped solvents during or after application.

Kem Kold Bild is being used by leading railroads and car builders now. Why not arrange for a demonstration by contacting The Sherwin-Williams Co., Transportation Division, Cleveland 1, Ohio.

<sup>†</sup>Trade-Mark

## SHERWIN-WILLIAMS RAILWAY FINISHES

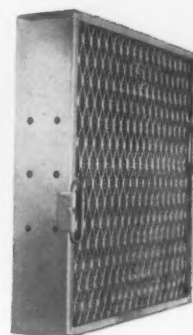




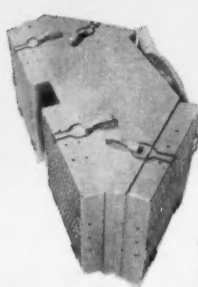
**Revolutionary,  
new ROTONAMIC  
air cleaner assembly**

## Standard on American Railroads - FAR-AIR\* Filtration Equipment

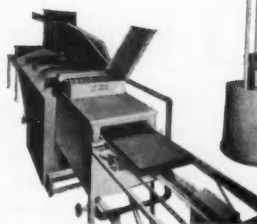
Self-cleaning centrifugal type air cleaner for engine air operates with constant high efficiency over a wide range of dust concentrations and loads. Requires no maintenance and does not load with dirt. Rugged road testing has resulted in an impressive record of proved efficiency.



**FAR-AIR panel filter:** Major American railroads use FAR-AIR panel filters as standard for engine, carbody and passenger car air handling systems. Herringbone-crimp media design assures greater dirt holding capacity, lower pressure loss and less maintenance expense. Product strength and uniformity assures longer service life.



**Diesel engine filter assemblies, air compressor filters and oil separators:** Units for these applications are available for all standard locomotives. Each is engineered for long service life, easy maintenance, simple installation and high performance. Sturdy construction, built to close tolerances.



**Automatic filter washer and oiler:** saves up to 67% in maintenance costs when as few as 100 filters are cleaned per day. Equipment is automatic and permits immediate re-use of filters. Available in 2 sizes.

**Dynamic grille:** Specially developed for railroads for installation over air inlets in car body, battery boxes, condensers, etc. It efficiently buffs off dirt and snow, keeps units cleaner and substantially reduces filter and other maintenance. For information on these and other FAR-AIR railroad products write P. O. Box 45187, Airport Station, Los Angeles 45, California.



\*Trade Mark

# Here's Proof of Performance...



ONE OF THE MISSOURI-PACIFIC'S FAST passenger trains passes over pressure-creosoted ties in the DeQuincy Division, near Hoffman, Tex.

DIRT ON AN OLD DATING NAIL is scraped away to show that this particular pressure-creosoted tie has been in track since 1929.



## Missouri-Pacific's pressure-creosoted ties last an average of 22.7 years in unusually severe service

● The far-flung Missouri-Pacific System, with its 12,947 miles of track, is a 100% user of pressure-creosoted ties, and has been since 1920. The reason lies in the service record that pressure-creosoted ties have compiled for this road: 22.7 years of average life, based on renewals during the five year period from 1944 through 1953.

This average was compiled in areas where the annual rainfall is in

excess of 40 inches. And the gross ton miles per mile of main track is 4.96 million annually. The presence of these factors, together with ever-present problem of plate cutting, make the 22.7-year average highly satisfactory.

Throughout the Missouri-Pacific System, there are 37,443,000 pressure-creosoted ties in track. In 1954, the estimated replacement was 1,283,000 ties.

### ANOTHER OUTSTANDING EXAMPLE

... of the effectiveness of pressure-creosoting in lengthening tie life and reducing replacements. And for the best performance from pressure-creosoting, be sure USS Creosote is used. For more information on this effective wood preservative, contact our nearest Coal Chemical sales office or write directly to United States Steel Corporation, 525 William Penn Place, Pittsburgh 30, Pa.

# USS CREOSOTE

SALES OFFICES IN PITTSBURGH, NEW YORK, CHICAGO, CLEVELAND, SAN FRANCISCO AND FAIRFIELD, ALA.



S-22

## UNITED STATES STEEL



## Shippers Have Big Stake in De-Regulation

While railroad men and their customers have a right to be critical about the prolonged delay in making public the intentions of the Administration with regard to transportation regulation, this vexation need not bar continued discussion of the general course the country ought to take.

Opinions expressed by industrial traffic managers run a wide gamut—from one that virtually all regulation should be abolished, to the opposite pole, that regulation should be made more severe and that it ought to be extended to all agencies, including restrictions on private carriers.

Insofar as shippers' opinions can be sampled without a formal survey, however, it would appear that there exists a strong bias toward "conservatism" among the carriers' customers. In its March issue, *Railway Freight Traffic* reported that 200 of its poll-panel of shippers voted as follows on this basic question: "What general direction should regulation take from here on?"

- |   |       |
|---|-------|
| (1) Retain, in general, present principles and coverage ..... | 39.7% |
| (2) "Regulate the unregulated" ....                           | 29.4% |
| (3) De-regulation for all .....                               | 16.5% |
| (4) Opinions combining above points                           | 4.4%  |

The 29% who voted for "regulate the unregulated" would undoubtedly find many allies on the railroads. It is a wholly understandable desire for men to seek to retain "protection" from the rigors of unrestricted competition and to wish to see that protection widened.

The motives underlying the conservatism of shippers, however, likely have a different basis. Logically, the customers of transportation would tend to favor retention and expansion of regulation only if they believe that this control will accomplish one or all of three ends:

- (1) Protect the smaller shipper whose bargaining power is inferior to that of his rivals;
- (2) Insure a continuing supply of common carrier services;
- (3) Stabilize the price of transportation.

Based on such motives, adherence to the belief that regulation should be expanded to include the presently unregulated appears logical, at first glance. But is it realistic? It is the belief of this

paper—based on analysis too lengthy to summarize in this space—that effective "regulation of the unregulated" is not possible, even if it were desirable. The truck, the barge and the freight airplane operate in the public domain and cannot be made to undertake all the obligations of the common carrier. Indeed, there is no practical way of requiring these carriers to accept all traffic—because none of them could or would have facilities to move all the traffic offered. Despite the intention laid down by the Motor Transport Act of 1935, so-called common carrier truck lines have never undertaken the full obligations of the common carrier.

S. W. Fairweather, vice-president of the Canadian National, in recent testimony recalled that, some years ago, Northern Ireland purchased all for-hire trucks and put them in joint ownership with the railroads. "This nicely drawn plan for the division of the traffic fell to pieces in six months, because private industry got themselves trucks and went out on the highway."

Does existing regulation actually provide "protection" for shippers? It produces precisely the opposite. By weakening the common carrier it simply reduces its ability to serve the smaller shipper whose dependence upon it is very much greater than his larger rivals'. Bargaining power in making contracts with "free" carriers or in providing private transportation is outside the orbit of regulatory control. "Protection" of the weak by regulation is an illusion. Its perpetuation will harm the very interests for whom it was designed.

As for stability: Why is fixity of transportation rates any more necessary than stability of prices of other commodities—as, for example, steel? Freight rates are no more significant a portion of the cost of commodities than any other prices. The fact is, not all shippers value stability of transportation rates at all times. They are turning more and more to contract carriers, where there is little stability and no thought of equalization, and to private movement, where there is no price base at all.

Theodore H. Brand, the outspoken traffic manager of the equally outspoken Chicago Tribune, made the claim recently: "The only real excuse for government regulation is a need for protecting the general public from abuses. I believe it cannot be denied that too much regulatory effort is being spent in protecting the carriers from each other. . . ."

"You should insist that the acts which now govern the various carriers be perused line by line and each rule subjected to the test of 'Is this necessary to protect the public?'"



## UP Gets Aluminum Dome Cars

First cars delivered from ACF St. Charles Plant of order for 59 are dome coaches and dome observation-lounge cars for three transcontinental trains—other types to come

Since the first of this year the Union Pacific has been taking delivery from ACF Industries, Inc., of the first of a group of 59 passenger cars ordered last year for service principally on the UP "Challenger" and "City of Portland." The order also included dining and observation cars for the latter train and the "City of Los Angeles."

The order includes ten dome coaches, fifteen dome observation cars, ten dome diners, four lunch-counter diners, and twenty sleeping cars, fourteen of which are of the open section type. This article describes only the dome coaches and dome observation cars, all of which have now been delivered to the railroad and are in service. The coaches have been assigned to the "Challenger" and the "City of Portland" and the dome observation cars have been assigned to the three trains involved.

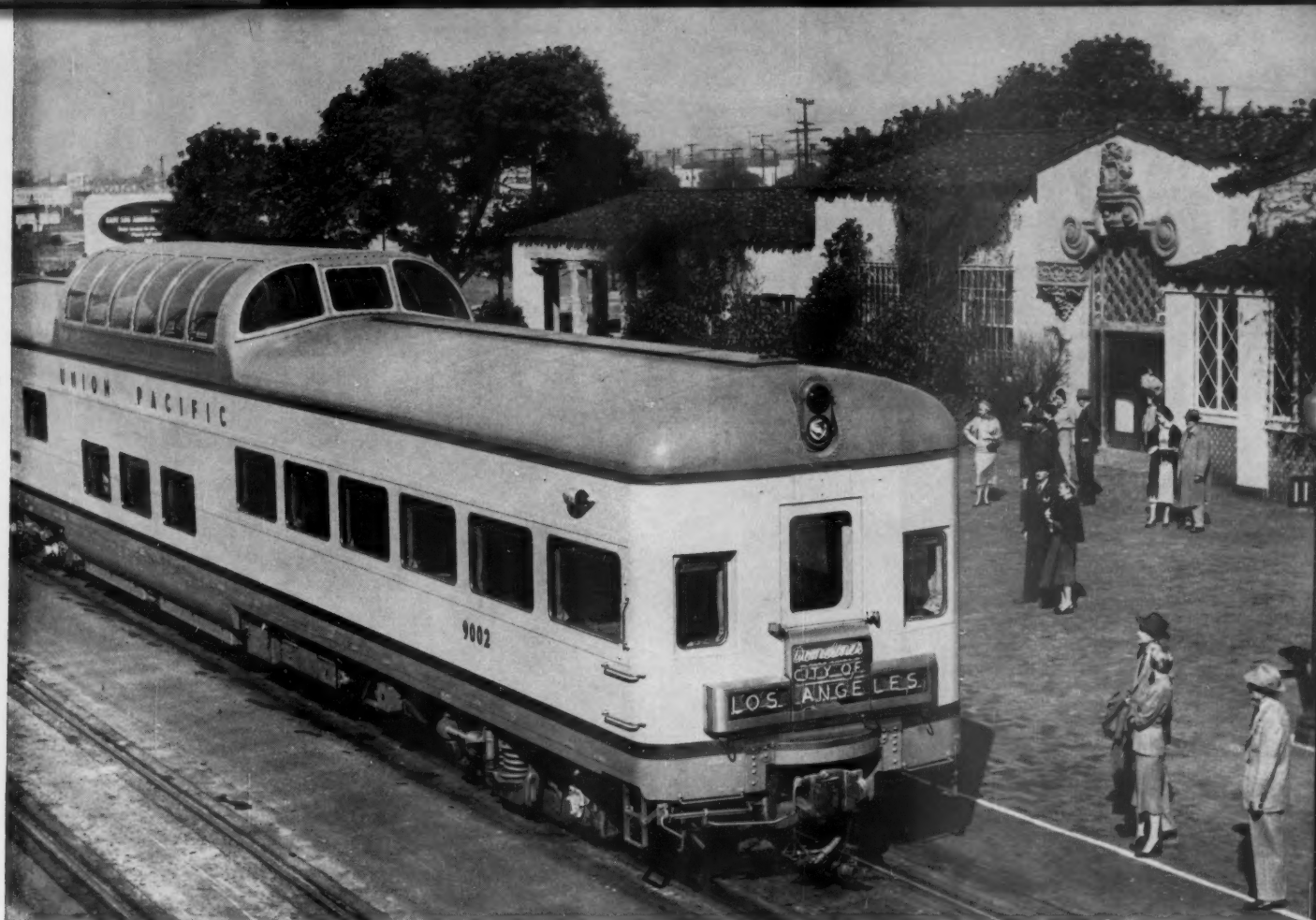
These are the first dome cars to use a structure combining aluminum and steel construction. The underframe is a low-alloy high-tensile riveted and welded assembly.

The superstructure is almost entirely aluminum alloy except in the dome and ends.

At each end of the underframe is a combined platform and bolster casting welded to a conventional center sill assembly. The center sills are fabricated from two AAR 36.2-lb Tri-ten Z-sections. They extend to special crossbearers at each end of the depressed dome section.

Under the dome the buffing load is carried by the side sills and by a special center sill assembly. The dome center sill is composed of two 4-in. 15.9-lb Z-sections with top and bottom connecting plates. This assembly is reinforced with a built-up girder running the full length and fastened to the bottom center sill cover plate. This girder has a web 16-in. deep.

The special crossbearers at the dome ends are 1/4-in. flanged high-tensile steel, specially shaped to accommodate steps down to the depressed floor level. The side sills at the car ends are 4-in. 8.2-lb Z-sections. Through the dome section the side sills are a 4 by 3 by 1/4-in. angle.



REAR END of one of UP's astra dome observation cars—15 of which will be assigned to 3 trains. Each car seats 45 persons, 24 in the dome.

Extending down from each of these sills is a  $\frac{1}{4}$ -in. web plate which has a 3 by 3 by  $\frac{1}{4}$ -in. angle at the bottom. Conventional crossbearers and floor beams are used at the ends.

In the depressed section the crossbearer and floor construction are a special ACF design.

The lower side frame and the side posts are 61S-T62 aluminum alloy. The side plate assembly is 14S-T4 alloy and is composed of two angles riveted to form a Z-section. The side posts are 3-in. extruded zeeks. Both the side sheathing and the roof sheets are 5/32-in. aluminum Al-clad, 24S-T3. The aluminum assembly is riveted or lock-bolted throughout.

The roof uses 61S-T62 alloy carlines and purlines except at the car ends and in the dome where all framing members are high-tensile steel sections. The main end posts are 8-in., 31-lb CB-sections of open hearth steel. The door posts at the vestibule end, the corner posts at the observation end, and those side posts over the jacking pads are low-alloy steel. The remainder of the structure, including the anti-telescoping construction, is of aluminum alloy.

#### Decorative Scheme

The decorative scheme of these cars is based upon the use of three basic designs, variations of which are used in floor coverings, upholstery and drapes. These three

designs are the "Gold Quartz," "Snowflake" and "Palm Frond" patterns. Variations of these designs form the basis of the decorative theme of all these cars.

The Gold Quartz theme, for example, was taken from the back bar mural in the cocktail lounge of the dome observation car which includes as part of the design the "Gold Spike" ceremony at Promontory Point, Utah—the ceremony joining the rails of the first transcontinental line and open the "bonanza country" of the west. From this starting point the overall pattern was developed for use in various ways and color harmonies in the coaches and the dome observation cars of the "Challenger." The Gold Quartz is used in two tones of green and gold on beige and is the drapery material in the "Challenger" dome coaches. This design is the facing material for the bulkheads and partitions of the coach section and in the

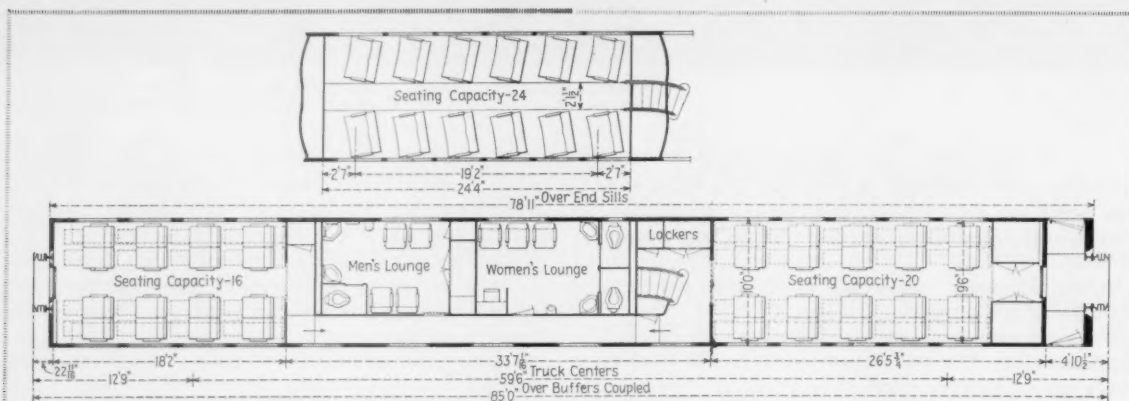
#### WEIGHTS (LB) OF THE NEW UNION PACIFIC DOME CARS

	Dome Observation	Dome Coach
Trucks .....	43,860	43,920
Body .....	114,105	115,725
Av. total weight .....	157,965	159,645

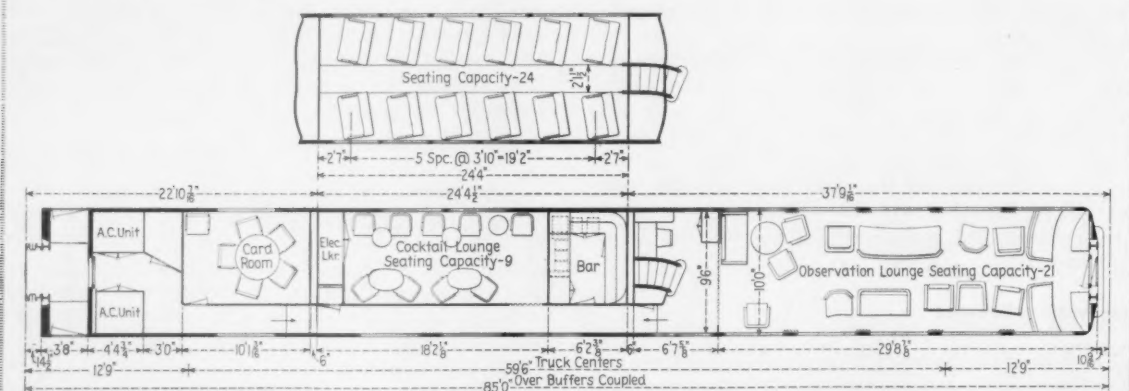




SEATS in the observation end of the cars can be arranged to provide maximum comfort and visibility.



Floor plan of UP dome coach.



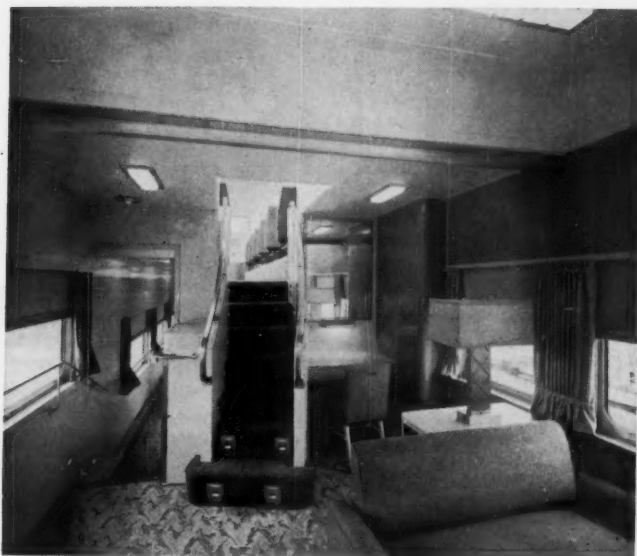
Plan of new dome observation car.



**COCKTAIL LOUNGE** in the observation car has seating capacity of 9 persons. This car shows the "gold quartz" pattern in carpeting, side walls, and bulkheads.



**INTERIOR** of dome observation car, shows stairway to dome section and passageway to cocktail lounge.



**A DETAIL** of the stairway section of the dome observation car showing the 3 levels of the car. Passageway leads to the cocktail lounge; stairway leads to the dome section of the car.



**THE DOME** section windows in these cars are one piece full vision sash; the dome section has panel heating and divan type seats.

observation lounge cars is repeated on the Formica wall covering in the cocktail lounges.

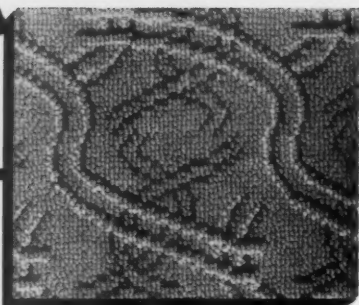
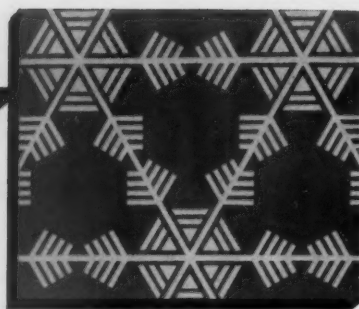
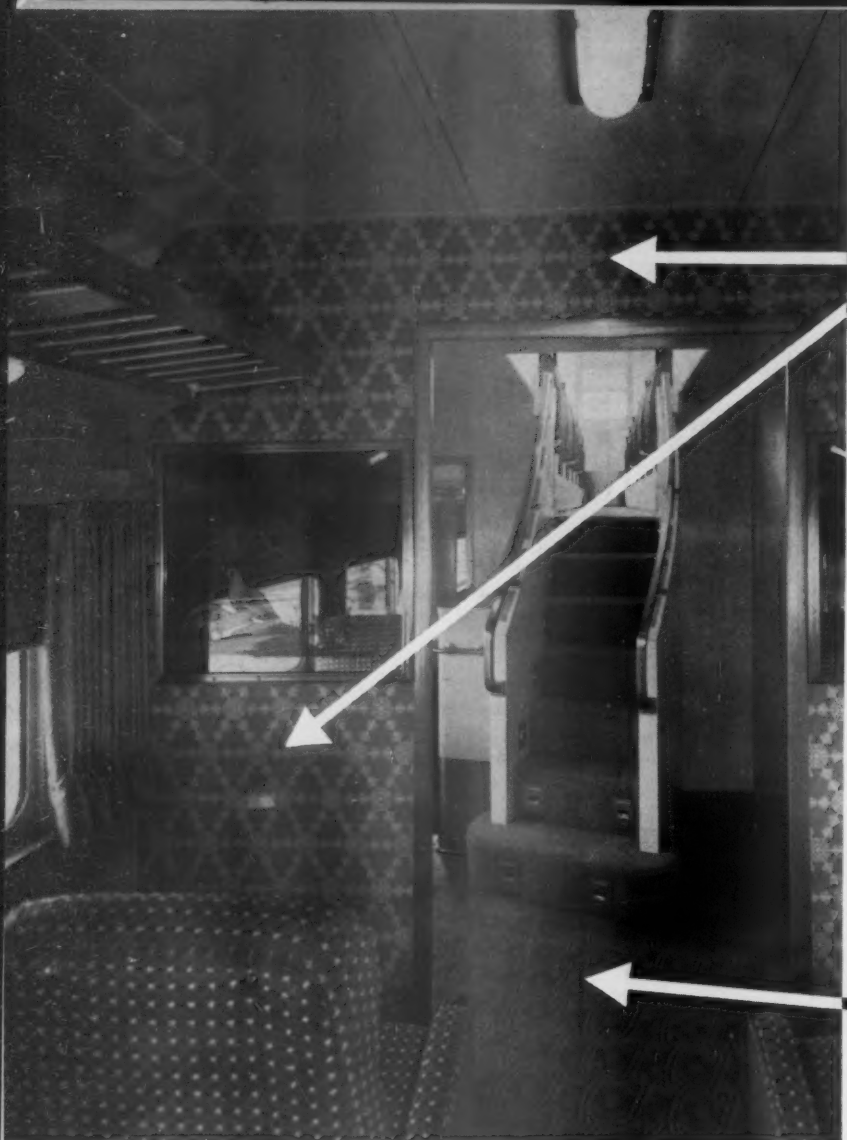
The Palm Frond theme—developed as a symbol of the western terminus of the train, Los Angeles—is seen in the carpet pattern of the "Challenger" dome coaches.

The dome observation cars assigned to the "City of Portland" have a decorative theme developed around the Sun Valley mural in which winter sports are the basic theme—hence the Snowflake pattern. This pattern appears in the rose and beige carpeting of the dome observation cars and is seen also in the Formica bulkheads and partitions in the dome coaches. The bulkheads are blue and off-white in a rose and blue color scheme.

The Sun Valley winter sports theme is further developed by using the pattern of ski trails in the snow in the lounge car draperies and the carpet design of the dome coaches.

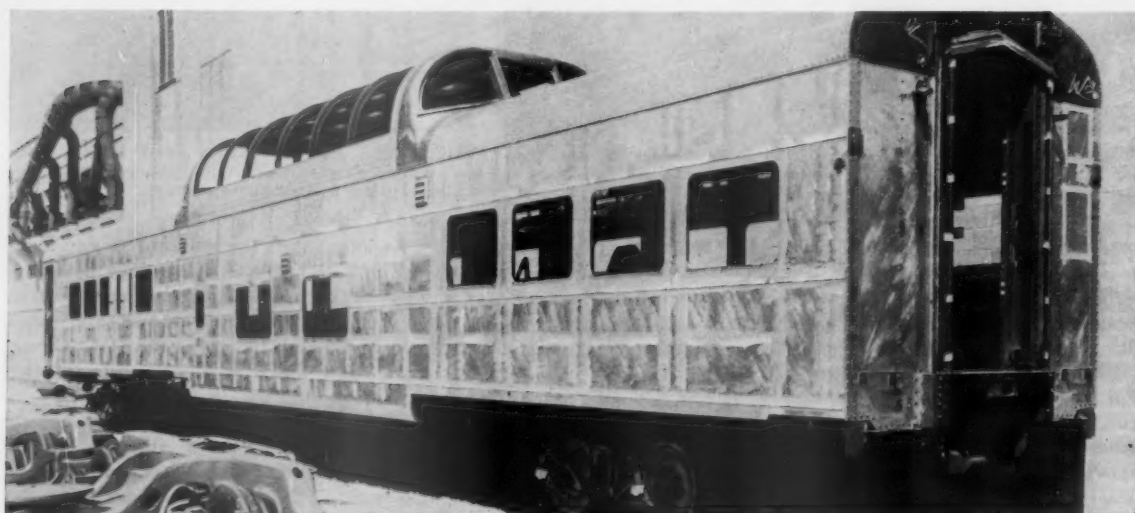
All of these dome cars are equipped with the Vapor Heating Corporation's Unizone type heating system, which is controlled by the attendant turning a switch on the heating and cooling panel.

There are two heat control Vapor mercury contact thermostats, one near the top of the stairway in the dome and the other in the passageway "downstairs" at the stairway end of the car. The dome thermostat opens and closes a Vapor steam regulator and feeds steam as necessary to the floor radiators in the dome



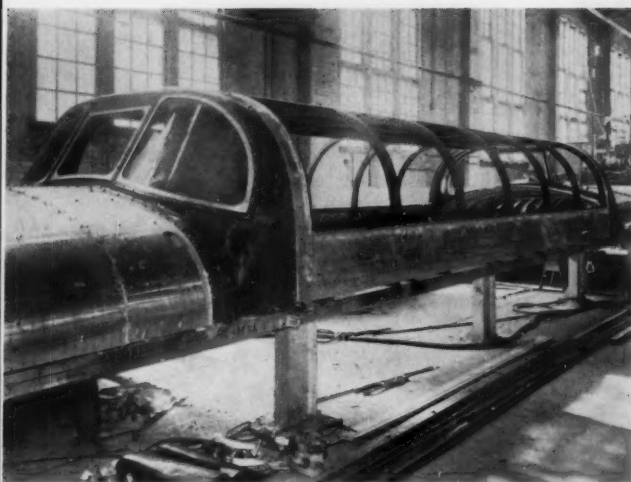
**DESIGN PATTERN** of the "City of Portland" dome coaches and observation cars was developed around the Sun Valley winter sports theme. The slalom race ski trail

pattern is repeated in the drapery design. The snowflake design is a continuation of the overall winter sports theme.



**SIDE SHEATHING**, side plate, belt rail and side posts, except those over jacking pads, are aluminum alloy. The main end posts, door end posts and observation end corner posts are steel.





**ROOFS** were jig-assembled. The main roof sheets are lock-bolted to aluminum carlines and purlines. The dome has



a high-tensile steel frame with formed steel sheets over the ends.

and to radiators in the overhead heat duct in the dome.

The downstairs thermostat in the passageway controls two Vapor steam regulators, one of which feeds steam to the radiator in the overhead duct downstairs and to floor radiation in one half of the downstairs section. The other regulator supplies steam to the floor radiation in the other half of the downstairs and to the Vapor hot wash water heat exchanger as well.

There is a high, low and off heat control setting on the panel of between 71 and 76 deg F. Vapor thermostats also control the cooling system of the cars which cannot go on while the heating system is in operation.

An interesting feature of the heating system in the domes cars is the Vapor Solar Disc located inside a glass fixture outside the car on top of the car. This device is sensitive to heat from the sun. In the winter time when the sun is shining on the car the Solar Disc will lower the setting of the thermostat in the dome from one half degree to four degrees in order to compensate automatically for the influence of the sun's heat on the interior temperature of the car. When the sun is blacked out by the clouds the thermostat immediately and automatically goes right back up to the normal setting so that passengers in the dome section will be comfortable all the time.

### Electrical System

Power for the 32-volt electrical system of both types of cars is supplied by a Waukesha Diesel Enginotor. The power unit consists of 6-cylinder, 60-hp, liquid-cooled diesel engine, direct-connected through a fluid drive coupling to a 27-kw, 40-volt, d-c, fully-enclosed, ball bearing generator. The unit is on a cushioned roll-out mount. The exhaust is carried to the roof. Fuel is supplied from two, 100-gal. tanks.

The battery is an Exide, 32-volt starting battery. It is rated 284 amp-hr at the 8-hr rate and is made up of 16 cells in 4-cell Monobloc trays.

Alternating-current power for dome observation cars is produced by a Safety Car Heating & Lighting 2,000-

watt motor alternator which converts the 32-volt d-c power to 115-volt, 60-cycle, a-c power. It supplies power for radio and the public address system. A-c power for the 115-volt receptacles on the dome coaches is produced by a Cornell-Dubilier Electric Corp. vibrator-converter.

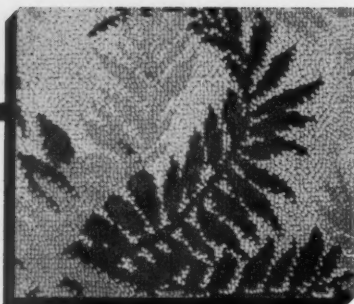
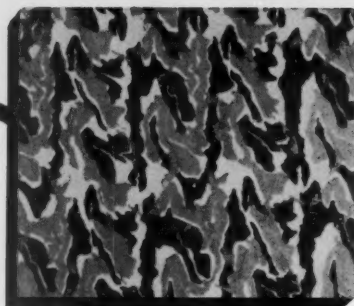
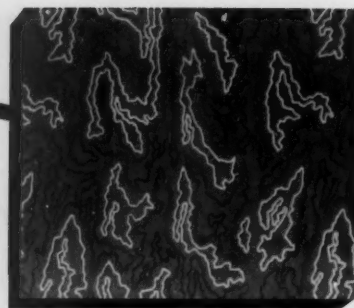
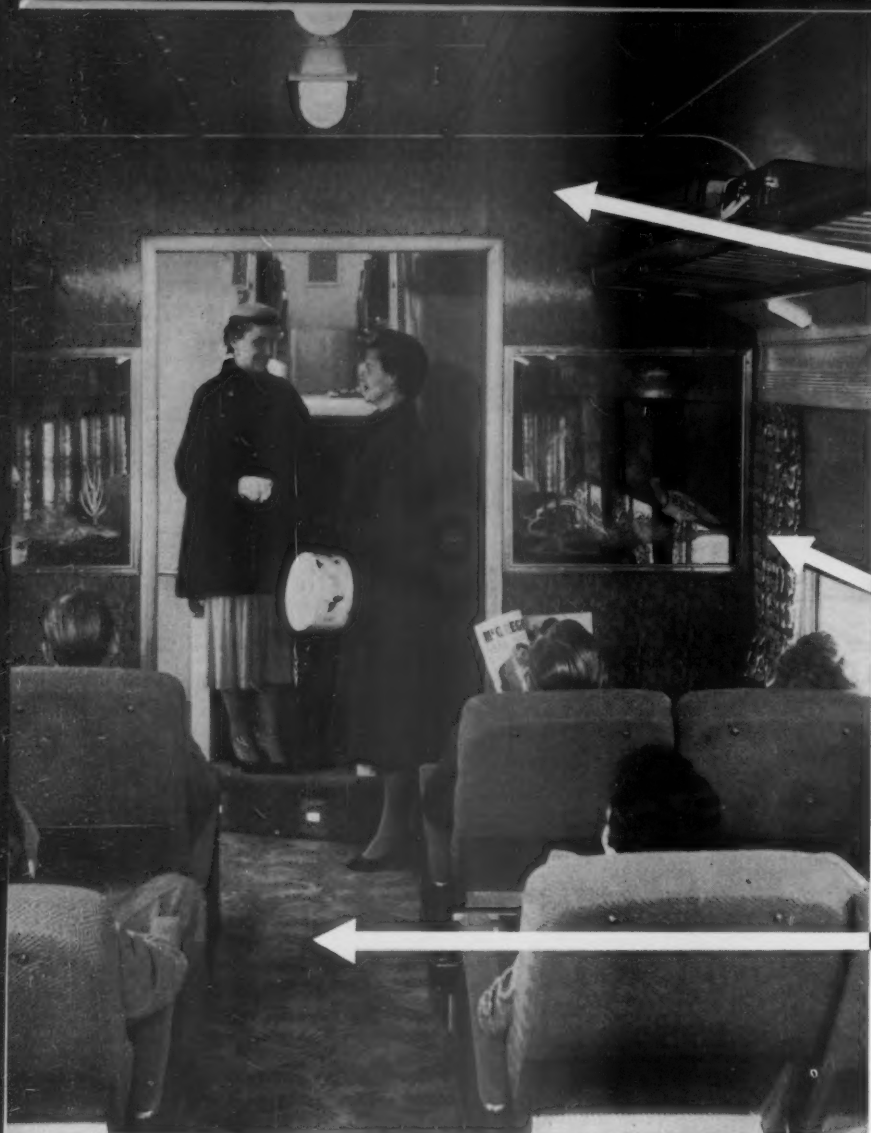
The a-c receptacles are used for razor and curling iron outlets and there are also 32-volt outlets for vacuum cleaners and water coolers.

Both types of cars are air conditioned by Safety 16-ton electro-mechanical equipment. Two separate eight-ton compressor units are applied,—one for the lower floor and lounge rooms, and one for the dome. The compressor units are direct-driven by two-speed motors and have unloading features. There is one 16-ton evaporative condenser, having two, 8-ton capacity coils, one motor-driven fan, one motor-driven pump and two receivers. The Farr dynamic grille condenser employed may be filled from either side of the car.

The relationship between air intake and exhaust is such as to provide a pressure of one-tenth inch of water inside the car. Two 16-in. by 20-in. by 4 in. Farr filters attached to the air conditioning unit handle both fresh and recirculated air. Pyle-National aluminum multi-vent panels provide air outlets for the chair compartment, both lower level and dome of the dome coaches, and for the observation lounge and dome of the dome observation cars. Passageways in both cars employ Barber-Colman grilles. Air Devices Company strip type air diffusers are used in men's and women's lounges and in the cocktail lounge of the dome observation cars. An Anemostat distributes air in the card room of the dome observation cars.

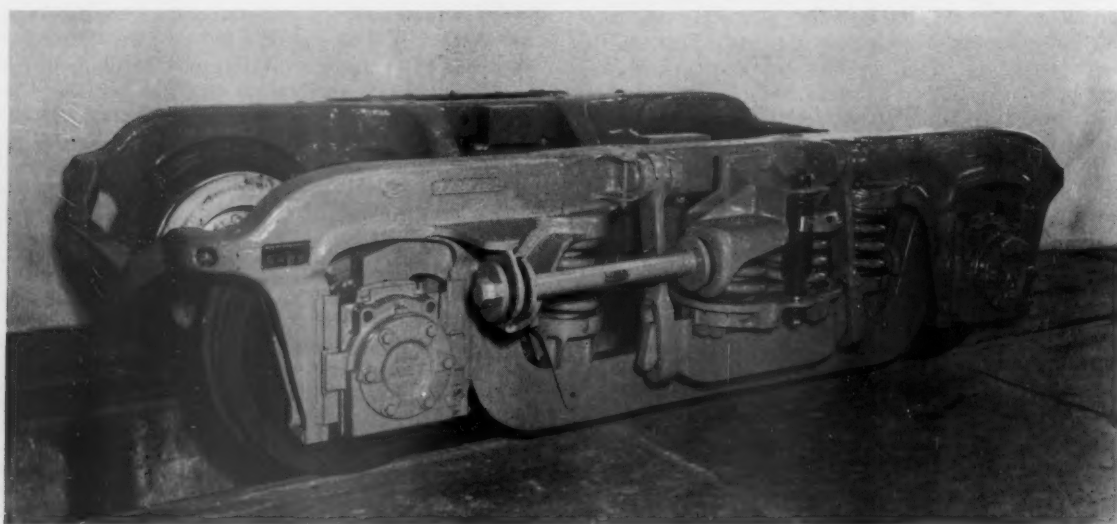
Lighting is, for the most part, incandescent. Lighting fixtures in both cars were selected and designed to conform with the specific requirements of the car interiors. The lighting layout was designed and the fixtures were supplied by Luminator, Inc.

The Westinghouse power panel for controlling and distributing generator output is equipped with a 4-pole, 400-amp main trainline breaker with an auxiliary switch for automatically disconnecting the dome a-c compressor and a single-pole single-throw, 300-amp battery discon-

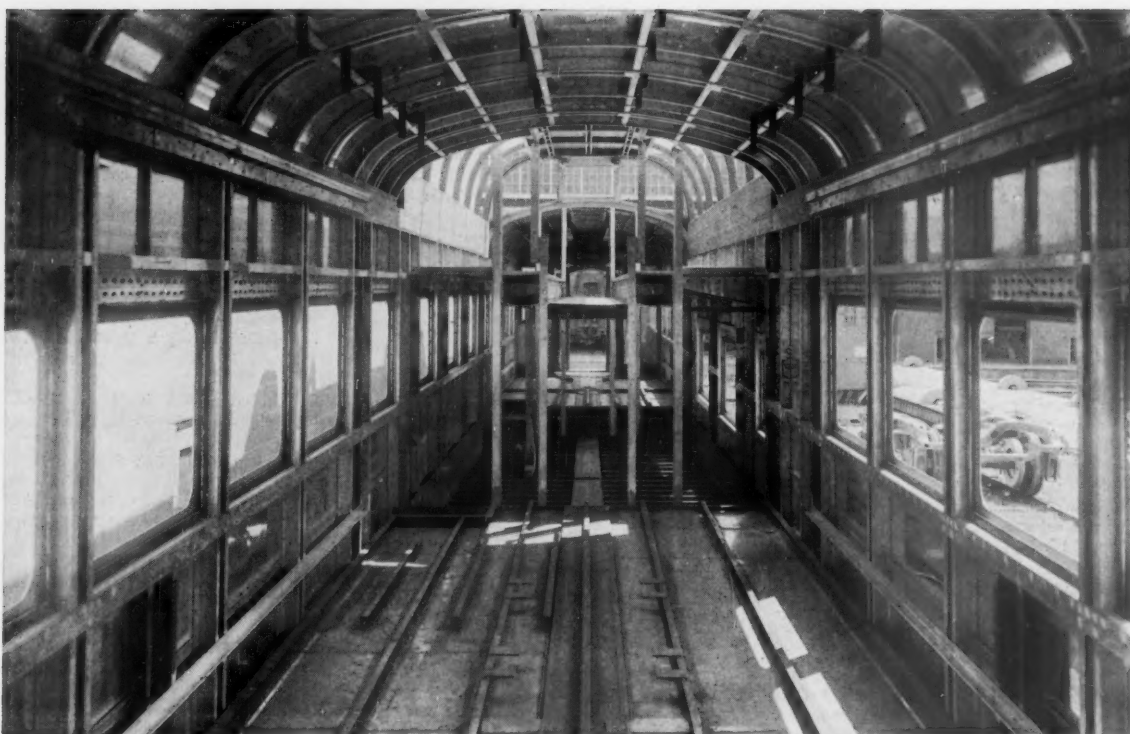


"GOLD QUARTZ" design in two tones of green, gold on beige background in the drapery material pattern of the "Challenger" and "City of Los Angeles" dome coaches was

developed from a piece of gold-bearing ore. The palm frond design in the carpet was developed as a symbol of the western terminus of the train—Los Angeles.



THE GSC all-coil-spring, outside-swing-hanger truck rolls on 6½-in. x 12-in. Hyatt roller bearings. It has the GSC central bearing, Budd disc brakes, and friction shock absorbers.



STAINLESS steel false floor on the main level. ACF-designed combination subfloor and floor beam assembly shows in the dome well. A special crossbearer transferred part of the buffing load.

nect switch. A separate, 12-circuit panel is used to control branch circuits.

Wiring is carried in ducts and in standard weight sheradized steel conduit. The wire used is 600-volt Simplex Anhydrex wire of the sizes required with Aircraft-Marine pre-insulated, solderless wire connectors for all wire sizes from No. 18 to 10. Wire sizes from No. 8 and larger have solder lugs.

There are four trainlines respectively for air brake control, (6-pole), telephones, (14-pole), 32-volt emergency lighting, (2 pole), and radio and public address system, (14-pole). The emergency lighting trainline is

400,000 cm cable. All trainline plugs and receptacles were supplied by the Pyle-National Company.

The radio and public address system employs five channels, one for radio, two for recorded music, one for microphone or public address system input and one for public address system output. Train entertainment is supplied by an RCA Victor broadcast receiver and two tape recorders. Cutting in the p-a system automatically cuts out the entertainment circuits.

A Mars combination warning and back-up light is mounted on the roof at the observation end of the dome-observation cars. There is also an illuminated name sign.

## PARTIAL LIST OF MATERIAL AND EQUIPMENT ON DOME COACH AND DOME OBSERVATION CARS

Aluminum plates, shapes, extrusions, rivets, castings .....	Aluminum Co. of America, Pittsburgh.
Cast-steel castings .....	American Steel Foundries, Chicago
Mulehide asphalt paper ....	Lehon Co., Chicago.
Insulation .....	American Hair & Felt Co., Chicago. Gustin-Bacon Mfg. Co., Kansas City, Mo. Johns-Manville, New York.
Stop nuts .....	Elastic Stop Nut Corp., Union, N. J.
Lock bolts, blind rivets ....	Huck Mfg. Co., Detroit.
Fasteners .....	Camloc Fastener Corp., Paramus, N. J.
Steel washers .....	Shakeproof Div., Illinois Tool Works, Elgin, Ill.
Cork subfloor .....	Armstrong Cork Co., Lancaster, Pa.
Step treads, thresholds ....	American Abrasive Metals Co., Irvington, N. J.

Trap doors, retractable step mechanism .....	O. M. Edwards Co., Syracuse, N. Y.
Fasteners, anchor nuts .....	Southco Div., South Chester Corp., Lester, Pa.
Sliding end door equipment	National Pneumatic Co., Boston.
Sliding door track, hangers, pulleys .....	Atlantic Hardware & Supply Corp., New York.
Diaphragms and hoods ....	Morton Mfg. Co., Chicago.
Interior-exterior doors, plywood panels, window capping .....	Met-L-Wood Corp., Chicago.
Hardware .....	Jas. L. Howard & Co., Hartford, Conn. Homer D. Bronson Co., Beacon Falls, Conn. Loeffelholz Co., Milwaukee. Yale & Towne Mfg. Co., Philadelphia.

More on next page ► ► ► ► ► ► ►



Plymetl doors .....	Haskelite Mfg. Corp., Grand Rapids, Mich.	Air diffusers .....	Air Devices, Inc., New York.
Tempered Presdwood .....	Masonite Corp., Chicago.	Multi-Vent panels .....	Pyle-National Co., Chicago.
Formica faced products ....	St. Charles Mfg. Co., St. Charles, Ill.	Uniflo grills .....	Barber-Colman Co., Rockford, Ill.
Micarta panels .....	Westinghouse Electric Corp., Pittsburgh.	Exhaust hoods, filters and frames .....	Farr Co., Los Angeles.
Formed steel parts .....	Leonard's Metal Forming Co., St. Charles, Mo.	Exhaust fans .....	Diehl Mfg. Co., Electrical Div., Singer Mfg. Co., Somerville, N. J.
Brass extrusions .....	Revere Copper & Brass, Inc., New York.	Temperature controls .....	Fulton-Sylphon Div., Robertshaw Fulton Controls Co., Philadelphia.
Snap-on moldings .....	Pyramid Moldings, Inc., Chicago.	Micro switches .....	Minneapolis Honeywell Regulator Co., Minneapolis.
Sash, hardware, window curtains, dome sash .....	Adams & Westlake Co., Elkhart, Ind.	Thermometers .....	Taylor Instrument Companies, Rochester, N. Y.
Dome handrail assemblies .....	Railway Specialties Corp., Bristol, Pa.	Fluorescent - incandescent light fixtures .....	Luminator, Inc., Chicago.
Extruded rubber, grommets, bumpers .....	Atlantic India Rubber Works, Inc., Chicago.	Light fixtures .....	Pyle-National Co., Chicago.
Window guards .....	Elcon Co., New York		Safety Car Heating & Lighting Co., New Haven, Conn.
Integrally cast platform-bolster castings, truck frames, shock absorbers .....	General Steel Castings Corp., Granite City, Ill.	Car number signs (obs.-cars) .....	Electric Service Mfg. Co., Philadelphia.
Truck springs .....	American Locomotive Co., Railway Steel Spring Div., New York.	Observation end sign .....	General Outdoor Advertising Co., Chicago.
Truck equalizers .....	Camden Forge Co., Camden, N. J.	Warning and back-up lights (coaches) .....	Mars Signal Light Co., Chicago.
Truck swing hangers and bars .....	Canton Drop Forge & Mfg. Co., Canton, Ohio.	Reflective letters, numerals, striping, tape .....	Minnesota Mining & Mfg. Co., St. Paul.
Truck bushings .....	Ex-Cell-O Corp., Detroit.	Defect card holders .....	Western Railway Equipment Co., St. Louis, Mo.
Insulating pads and bushings .....	Fabreeka Products Co., Boston.	Loud speakers .....	Graybar Electric Co., New York.
Wheels, axles .....	United States Steel Corp., Pittsburgh.	Telephone equipment .....	Automatic Electric Sales Corp., Chicago.
Journal bearings and boxes .....	Hyatt Bearing Div., General Motors Corp., Harrison, N. J.	Radio recording, P-A system equipment, train radios .....	R.C.A. Victor Div., Radio Corp. of America, Camden, N. J.
Journal-box heat indicators .....	Timken Roller Bearing Co., Canton, Ohio.	Batteries .....	Electric Storage Battery Co., Philadelphia.
Roller-bearing lubricant ....	Richfield Oil Corp., New York.	Battery box grating .....	Klemp Metal Grating Corp., Chicago.
Couplers and radial connections .....	National Malleable & Steel Castings Co., Cleveland.	Electrical material .....	Pyle-National Co., Chicago.
Draft gear .....	Waugh Equipment Co., New York.	Electric conduit, fittings ....	Cranell, Nugent & Kranzer, Inc., New York.
Upper buffer mechanism ....	Standard Railway Equipment Mfg. Co., Hammond, Ind.	Electric wire and cable ...	Simplex Wire & Cable Co., Cambridge, Mass.
Center locking pins .....	W. H. Miner, Inc., Chicago.	Motor alternators, lamp regulators, fuse tester .....	Safety Car Heating & Lighting Co., New Haven, Conn.
Insulmat .....	J. W. Mortell Co., Kankakee, Ill.	Power and distribution panels, circuit breakers, exhaust blowers .....	Westinghouse Electric Corp., Pittsburgh.
Air-brake equipment (coaches) .....	New York Air Brake Co., New York.	Diesel enginators .....	Waukesha Motor Co., Waukesha, Wis.
Air-brake equipment (obs. cars) .....	Westinghouse Air Brake Co., Wilmerding, Pa.	Switchboard supports .....	Unistrut Eastern Service Co., Irvington, N.J.
Truck disc brakes .....	Budd Co., Philadelphia.	Wire terminals .....	Aircraft Marine Products, Inc., Harrisburg, Pa.
Hand brakes .....	National Brake Co., New York.	Razor converters (coaches) .....	Cornell-Dubilier Electric Co., Indianapolis.
Brake chain .....	American Chain & Cable Co., Bridgeport, Conn.	Water tanks .....	Scaife Co., Chicago.
Floor covering .....	Goodyear Tire & Rubber Co., Akron, Ohio.	Stainless-steel water tanks ..	ACF Industries, New York.
Carpet .....	Beck & Blatchford Co., Chicago.	Water strainers, finished castings .....	Paul Leistner's Sons Mfg. Co., St. Charles, Mo.
Carpet cushion, extruded rubber .....	Mohawk Carpet Mills, Amsterdam, N. Y.	Pipe and fittings .....	A. M. Byers Co., Pittsburgh.
Seats (coach), dome settees .....	U. S. Rubber Co., New York.		Crane Co., Chicago.
Furniture .....	Heywood-Wakefield Co., Gardner, Mass.	Pipe fittings .....	Mueller Brass Co., Port Huron, Mich.
Curtain materials .....	Beck & Blatchford Co., Chicago.		Chase Brass & Copper Co., Waterbury, Conn.
Upholstery material, decorative leather (obs. cars) .....	Pantasote Co., New York.	Pipe insulation .....	Grinnell Co., Providence, R. I.
Drapery materials .....	Radel Leather Mfg. Co., Newark, N. J.	Drain valves .....	Imperial Brass Mfg. Co., Chicago.
	Beck & Blatchford Co., Chicago.	Soap dispensers, wash basins, dental lavatories ....	Walworth Co., New York.
	Collins & Aikman Corp., New York.	Hoppers .....	Union Asbestos & Rubber Co., Chicago.
	Goodall Fabrics, Inc., New York.	Vending machines .....	Walworth Co., New York.
	Orinoka Mills, New York.	Mechanical water coolers (coaches) .....	Crane Co., Chicago.
	F. Schumacher & Co., New York.	Drinking-cup dispensers (coaches) .....	Duner Co., Chicago.
Plush .....	Collins & Aikman Corp., New York.	Paper towel cabinets (coaches) .....	Advance Machine Co., Minneapolis.
Mirrors (coaches) .....	Safetee Glass Co., Philadelphia.	Paint materials .....	Otto Bussenius & Co., Chicago.
Mirrors and plate glass ....	Pittsburgh Plate Glass Co., Pittsburgh.		Dixie Cup Co., Easton, Pa.
Decorative mirrors and frames .....	Harriton Carved Glass, New York.	Paints, enamels .....	E. I. du Pont de Nemours & Co., Wilmington, Del.
Mirror frames (coaches) ...	Hunter Sash Co., Flushing, N. Y.	Alumilastic, prime materials .....	Pittsburgh Plate Glass Co., Pittsburgh.
Decorative panels, murals ..	Formica Co., Cincinnati.	Fire resistant paint .....	Parr Paint & Color Co., Alumilastic Div., Cleveland.
Decorative silk screen prints .....	Ultra Modern Textile Printers, New York.		Patterson-Sargent Co., Cleveland.
Decorative materials .....	Scalamandre Silks, Inc., New York.		
Back bar (obs. cars) .....	Angelo Colonna, Philadelphia.		
Fuel gages .....	Jerguson Gage & Valve Cor., Somerville, Mass.		
Heating equipment .....	Vapor Heating Corp., Chicago.		
Heater pipe grills .....	ACF Industries, New York.		
Air-conditioning equipment, exhaust fans .....	Safety Car Heating & Lighting Co., New Haven, Conn.		
Anemostats (obs. cars) .....	Anemostat Corp. of America, New York.		



NEW HAVEN RECEIVES TEN

## GE Rectifier-Type Locomotives

- Why They Were Needed
- What They Are Like
- What They Will Do

In December 1954, the General Electric Company began delivery on an order for 10 rectifier-type electric locomotives for the New Haven. These are high-speed passenger units which will operate over the road's electrified line between New York and New Haven, Conn.

Although quite similar in general characteristics and performance to other locomotives now being used in this service, the new motive power differs from them in many electrical and mechanical features. To appreciate these, it is necessary to understand the unusual nature of the New Haven passenger locomotive operation into New York. The railroad's main line is electrified with an 11,000-volt, 25-cycle, single-phase, overhead a-c system from New Haven to Pennsylvania Station, New York. From Woodlawn, N. Y., going into Grand Central Terminal over the Park Avenue viaduct, the line is electrified with a 660-volt d-c third rail system. Passenger locomotives must, therefore, be designed for operation from these two power sources; must carry complete train heating equipment and supplies; yet must not exceed the axle load limit of 58,000 lb over the viaduct.

At the Winter General Meeting of the American Institute of Electrical Engineers, held in New York last Janu-

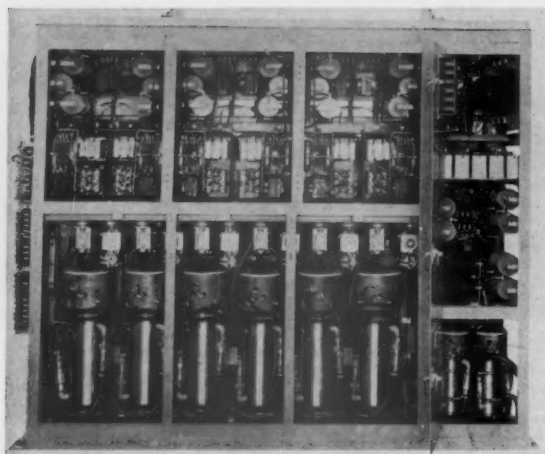
ary 31-February 4, F. D. Gowans, of the Locomotive and Car Equipment Department of General Electric, described the locomotive designed to meet these requirements. An abstract of his paper follows.

### *Application of Rectifiers*

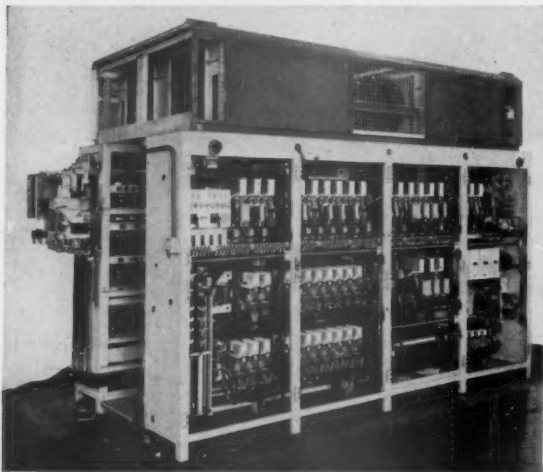
Until recently railway use of rectifiers has been limited largely to substations furnishing direct-current power for locomotives and cars. The first large domestic application of rectifiers as part of the propulsion equipment began in 1954, when the New Haven received delivery of 100 multiple-unit cars, equipped by the Westinghouse Electric Corporation, and the first locomotive in the group described here. Whether installed in substations or on rolling stock, the rectifier has facilitated the use of d-c traction motors with an a-c power source.

In recent years, the d-c traction motor has benefited from intensive development for the diesel-electric locomotive. Facilities for quantity production and experience gained from thousands of motors in service have greatly reduced both the manufacturing cost and the maintenance expense of this type of traction motor. The rectifier locomotives here described benefit from this development through the use of General Electric's standard GE-752 d-c motor.

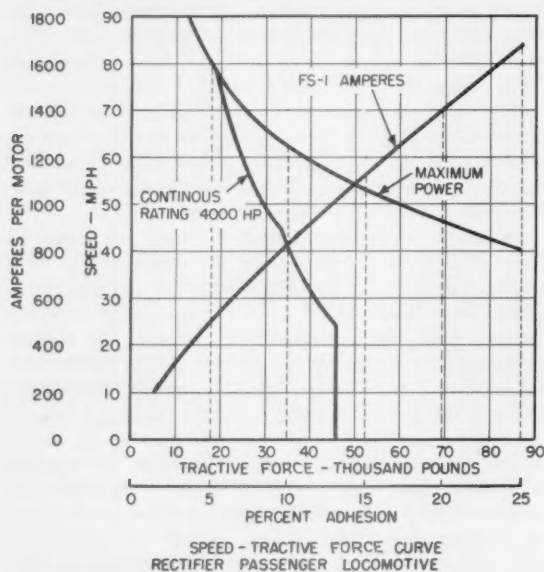
The locomotive has a cab of box-type construction with streamlined ends, and is fabricated from sheets and structural shapes by welding. The cab sides are designed as load-carrying girders which support the underframe and equipment. Each end of the underframe is fitted with a pilot, rubber draft gear and tight-lock coupler.



RECTIFIER cabinet—two are used for each locomotive.



CONTROL unit includes two control cabinets with accelerating resistors and blower mounted above.



LOCOMOTIVE characteristic curves.

New Haven standard headlights, marker lights and number lights are built into the nose sheets.

A combined fuel and water tank for train heating supplies is hung below the cab underframe between the trucks.

Arrangement of equipment on the roof provides for an a-c pantograph mounted on a hatch cover at each end. These hatch covers are built as ducts. Ventilating air for the equipment is taken in from the side of these ducts at the roof level. The center portion of the roof is solid and carries the accelerating resistors and blowers.

Both ends of the cab are streamlined, with front windows above the curved hood, and windows at the same level on the side to give maximum visibility. Side doors at both ends provide entrance to the operating cabs. Access to the roof is by means of an inside ladder and roof opening.

The cab is carried on two 3-axle, swing bolster trucks. All axles are motored. To provide room for the motor on the center axle, the centering plate is located between axles Nos. 1 and 2. Spring-loaded sliding plates on each side of the truck frame between axles 2 and 3 also carry load and provide uniform distribution of weight on the axles.

Inside equalizers, supported on top of the roller bearing journal boxes, carry the cast steel truck frame on helical springs. The frame in turn carries the swing bolster and center plate on four swing links, spring plank and elliptical springs.

Foundation brake gear is designed for 75 per cent braking. Clasp brakes are employed with one cylinder for each wheel. Each cylinder is fitted with an automatic slack adjuster.

#### Location of Apparatus

Small apparatus, such as batteries, train control and air brake equipment, is located in the end hoods, where it is readily accessible and easily connected to the equipment at the engineman's position.

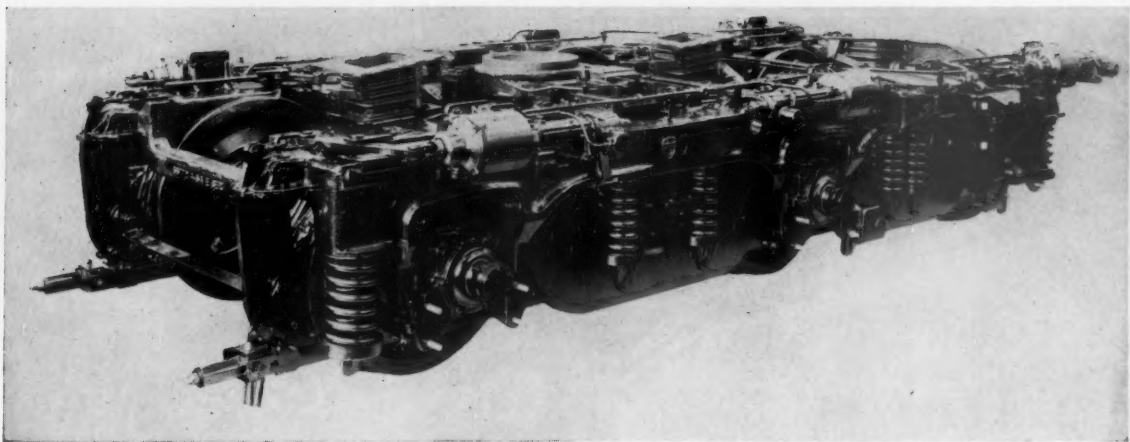
Standard 24RL air brake equipment is used. An air compressor with a rating of 200 cfm supplies the air. The two storage reservoirs, having a combined capacity of 75,000 cu in., are beneath the cab underframe, one at each end of the fuel and water tank.

Duplicate operating cabs, with raised platforms at the engineman's and fireman's positions, are placed at each end of the main apparatus compartment. Controls, brake valves and other equipment are arranged for the safety and convenience of the crew. A steam generator having a capacity of 2,500 lb of steam per hr is installed in each cab. These two generators can be operated together or independently to meet the train heating requirements.

A bulkhead, with doors on each side, separates the operating cab from the main apparatus compartment. An equipment blower at each end of the apparatus compartment furnishes ventilating air for the traction motors, transformers, rectifiers and reactors. It also ventilates the rectifier cooling radiators. Air enters by ducts in the hatch covers, and passes through the rectifier cooling radiators into the equipment blowers, which discharge it into a duct in the cab underframe. From here, it is distributed to the apparatus as required.

The main transformer is designed to utilize the full





THREE-quarter view of truck with motors assembled.

height of the cab. The high-voltage bushing on top protrudes through the hatch cover to confine the 11,000-volt circuits to the roof. Secondary taps and tap switches are mounted on one end of the tank. The transformer is liquid-cooled by Pyranol. A motor-driven pump circulates the liquid through the tank and windings to a cooler on the right side of the tank. Ventilating air from the duct in the cab underframe is forced through the cooler.

All of the d-c control, together with auxiliary and changeover switches, is located in two control cabinets. Each cabinet faces a side aisle from which the equipment can be easily inspected and maintained. A center aisle between the cabinets gives access to the rear of each and to the filter condensers located there.

The control cabinet structure supports the accelerating resistors and blowers on the roof. This arrangement keeps the length of the leads between the resistors and the switches at a minimum. The resistors are of the ribbon type and are ventilated by means of motor driven blowers connected across the resistors. With this scheme, the amount of ventilating air is proportional to the voltage across the resistor.

Twelve main circuit rectifiers and four auxiliary rectifiers, together with the firing circuit equipment, are arranged in two rectifier cabinets. The rectifier cooling system pump with its controls is in the lower part of the blower compartment adjoining the rectifier cabinets.

Standard 8-in. rectifier tubes have been modified for this application to provide heavier anode construction and changes in the mercury pool to assure ignition contact under the most adverse conditions of locomotive movement. A motor-driven pump circulates cooling water through the tubes, control valves and air-cooled radiators.

Two reactors, located between the two rectifier cabinets, are air-cooled from the main ventilating duct. One reactor is an air core type with six circuits. The other is an iron core reactor used to smooth the current ripple in the rectifier output to the traction motors. This is necessary for proper commutation of the motors. The auxiliary motors also have smoothing reactors for the same purpose.

In the a-c zone, power is supplied to the main transformer primary from the overhead trolley at 11,000 volts, 25 cycles. It is collected by the two pantographs on the roof. From the transformer secondary, power is

supplied through tap switches and current limiting reactors to 12 main rectifier tubes arranged in three separate bridge connected circuits. Power output from the rectifier supplies six traction motors through the change-over switches, the main smoothing reactor, line switches and accelerating resistors. Arrangement of the traction motor circuit provides two motor combinations: three in series, two in parallel on the 1,407-volt tap, and two in series, three in parallel on the three higher voltage taps. Voltage variation on the traction motors is obtained by means of the d-c accelerating resistors in the traction motor circuit in combination with the transformer taps.

In the d-c zone, power is supplied from the third rail at 660 volts. It is collected by third rail shoes on each side of both trucks. Change-over switches, located in the main power and auxiliary circuits and controlled from a single switch at the engineman's position, permit setting up the circuit for either a-c or d-c operation.

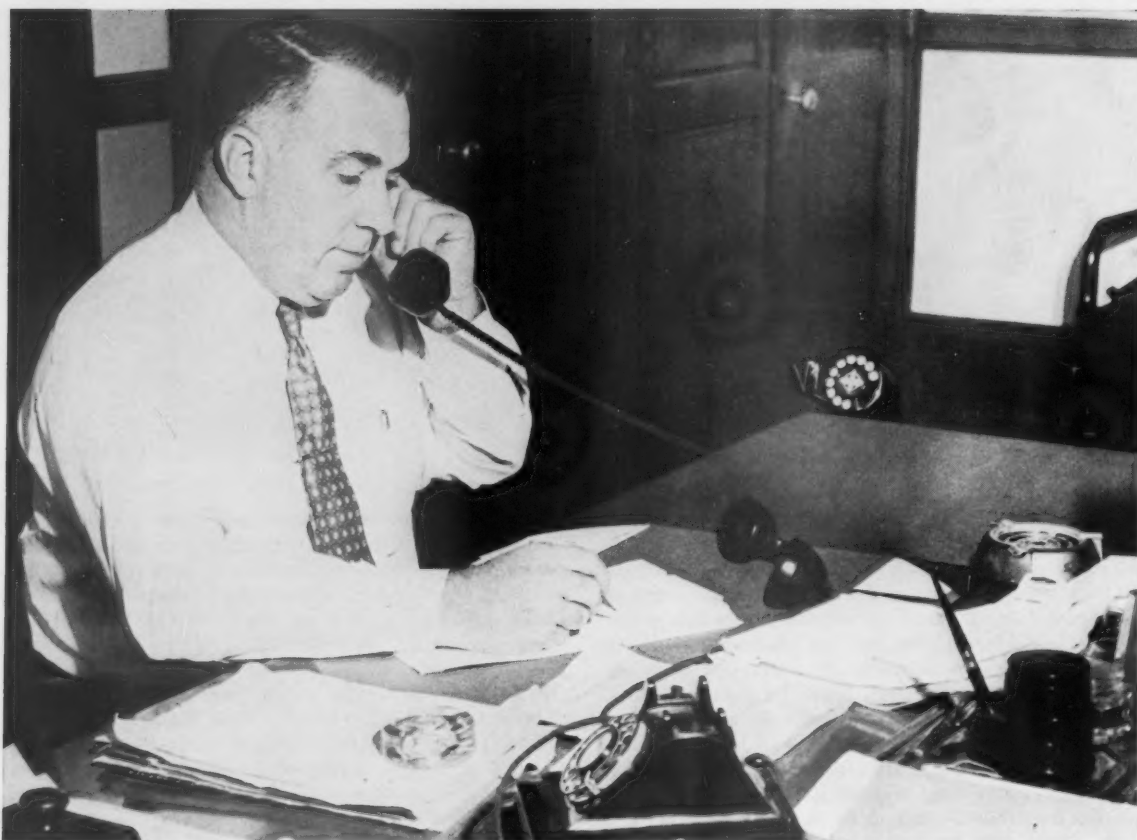
Protection for electric equipment is of two general kinds: overload type for the transformer, traction motors and auxiliary motors; and ground relay type for both the main and auxiliary circuits. The rectifiers are protected by current limiting reactors in each circuit and an arc-back relay.

### Mechanical Design

These locomotives are the first built for present New Haven electric passenger service with all weight on drivers. The a-c commutator motor type locomotives built for this service in 1937 weight 432,000 lb. This load is carried on two 3-axle, articulated driving trucks and two 2-axle guiding trucks, making a total of 10 axles. The high load concentration resulting from the close truck and axle spacing limited the axle loads to 45,000 lb.

In a recent building program the Park Avenue viaduct was modernized and its load carrying capacity increased. When the rectifier locomotive was proposed with all weight on two widely spaced 3-axle, swing-bolster trucks, it was approved for 58,000 lb per axle. With six axles, this means that the total locomotive weight was limited to 348,000 lb.

The new locomotive weighs 84,000 lb less than the locomotive built in 1937, and has 74,000 lb more weight on drivers.



L&N TELEPHONE is used by railroad officer to secure information which he passes on to a caller, waiting on the city telephone.

## Private Telephone System Pays

... AS IT'S USED ON THE L & N

Railroad-owned system, including 12 automatic telephone exchanges, 9 manual switchboards, and long-distance trunks, provides complete communications 24 hours every day.

As part of the facilities in the new Radnor classification yard at Nashville, Tenn., the Louisville & Nashville has installed a 100-line automatic telephone system. There are similar facilities elsewhere on the system. A reporter, visiting this yard, asked: Why automatic? Why railroad owned? Why so many phones in one yard? And how can they be connected to phones in other yards or offices, or to outside phones?

**Why Automatic?** As compared with a manual switchboard, an automatic exchange puts the calls through without delay; gives no "wrong numbers"; and renders 24-hour service, seven days every week, with no operators. Based on present-day wages for just one operator around the clock, every day, the annual wage cost will pay for the automatic equipment in a relatively short time.

**Why So Many Phones?** The L&N policy is that, by owning its own automatic telephone systems, the costs are controlled so that phones can be installed not only where they are used constantly, but also where use is infrequent, or in rare emergencies. Phones are installed wherever needed on the entire railroad, and employees are encouraged to use these phones, with no limit on the number or duration of calls.

The automatic exchange at Radnor yard has a capacity of 100 phone lines, of which 90 were installed as part of the original project. These phones are located not only in the offices of yardmasters, retarder operators, car checkers, car inspectors and signal maintainer, but also in the diesel shop, ice house and ice dock, and in booths along yard leads and elsewhere as needed. No one has to walk far to find a phone. The automatic exchange at

South Louisville connects 100 phones in the car and locomotive shops and yards. An automatic exchange in the general office in Louisville connects 400 phones throughout this building where 1,900 employees work.

**How Do You Talk Outside?** The L&N automatic dial telephones are used strictly for calls between railroad men when working in the railroad offices, shops, yards and terminals. These phones are not intended for outside calls. To talk outside, commercial telephone service is used. However, only a relatively few commercial phones are required in offices, shops or yards. For example, studies proved that of the total number of calls, only 15 per cent are between the public and railroad men (either way), compared with 85 per cent between railroad men on the railroad telephone system.

Commercial phones on the L&N are provided in offices of the passenger department and freight traffic department, in ticket offices and other offices which deal directly with the public. In other departments, a limited number of commercial phones are centrally located where they can be used by several people. In these departments, there are six railroad phones for each commercial telephone.

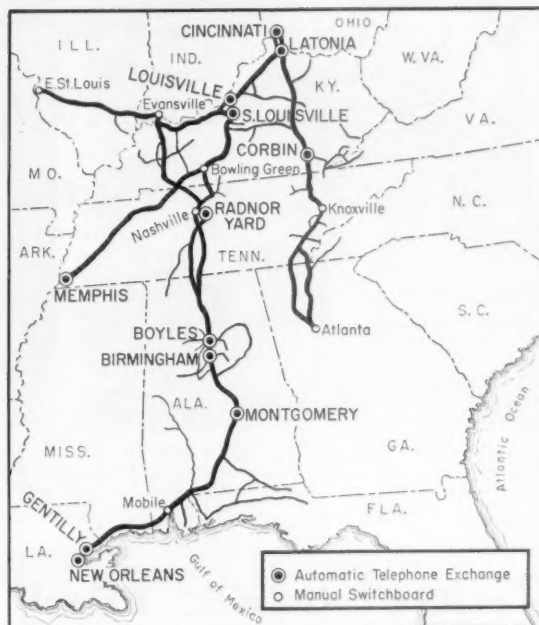
**Advantages of Two Phones:** The L&N has proved that two phones are an advantage when serving the public. For instance, when a shipper makes a long-distance commercial telephone call to the freight traffic department, requesting information covering the forwarding of a freight car, the railroad clerk receiving the call then uses his railroad telephone to obtain the information requested without breaking the long-distance commercial connection.

The passenger department has materially improved its service to the public through the use of commercial and railroad telephone services. For example, when a passenger calls a ticket office, the agent uses the railroad telephone to secure reservations, and then turns back to the commercial phone to give the information to the caller, without having to break the connection or to call the passenger back later. Thus, the use of two phones can result in considerable time saving.

### Trunks Between Cities

This railroad has its own pole line and line wires. In addition to physical and phantom circuits, the L&N has installed carrier, and is now installing more, so that by the end of 1955, a total of 2,859 circuit miles will be in service between cities. Future expansion of long-distance circuits, to handle increased traffic, is to be obtained by the installation of more carrier equipment. For example, additional carrier circuits will be placed in service between the following cities: Louisville and Cincinnati, Louisville and Atlanta, Louisville and Memphis, Louisville and Birmingham, Louisville and Mobile, Birmingham and Montgomery, Birmingham and Mobile, and Mobile and New Orleans.

**Dialing Through.** The automatic telephone equipment is arranged so that the dial on any automatic telephone can be used to call any other phone in the same exchange or in automatic exchanges in some other cities. For example, a man in Montgomery can dial through to a phone in Birmingham, the call going over the L&N line circuits. Louisville is the principal center of communications for the entire railroad. The L&N long-distance



### L&N AUTOMATIC EXCHANGES

City	Number of Phone Lines	Area Covered
Birmingham, Ala.	100	Division offices and local freighthouse system
Boyles, Ala.	50	Local operations
Cincinnati, Ohio	50	District traffic and local freight offices
Corbin, Ky.	100	Division offices and terminal
Gentilly, La.	50	Yards
Latonia, Ky.	100	Division offices and terminal
Louisville, Ky.	400	General offices of the railroad and nearby yards
South Louisville, Ky.	100	Terminal and shops
Montgomery, Ala.	50	Terminal
New Orleans, La.	50	Terminal
Memphis, Tenn.	100	Terminal
Radnor (Nashville), Tenn.	100	Yards

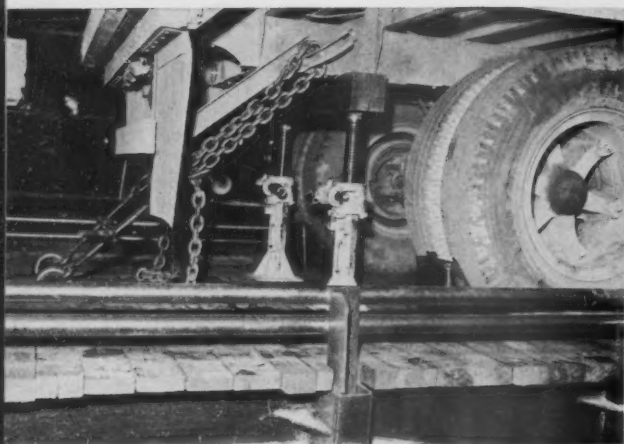
circuits coming into Louisville are terminated in a manual switchboard. Tie lines connect the manual board and the automatic exchange in this building. Ten trunks extend between this general office building and the automatic exchange at the South Louisville shops. Manual switchboards, in service at Atlanta, Knoxville, Nashville, Mobile, Evansville and East St. Louis, range in capacity from 20 to 40 lines.

An automatically controlled time clock is used to check the use of trunk circuits. For example, when all three trunks between Louisville and Cincinnati are busy, circuits are closed to operate the clock. By using this equipment, the telephone engineer found that all trunk circuits between any two cities were busy less than 1 per cent of the time, on the average.

In addition to the saving of time and improvement of operations in the freight and passenger departments, the use of the railroad's telephone system has also brought about comparable savings in other departments. Automatic telephones in diesel shops enable mechanics and

(Continued on page 60)





**DAMAGE-FREE PIGGYBACK** service may result in part from the way tie-down equipment (*left*) helps absorb impact shock. Some claims men also give credit to the



"double springing" of flat car plus trailer. Elimination of rehandling (*right*) is no doubt part of the reason why piggyback service is producing few damage claims.

## Piggybacks: They Reduce Damage

Railroads with trailer-flat car service are turning in a Perfect Shipping record that pleases carriers and shippers alike

Our damage claims have been so insignificant that they have not been compiled as a matter of record."

"We can say definitely our experience has been very favorable damage-wise."

That's a sampling of what railroad claims men across the country are saying these days about that bustling newcomer in transportation—"piggyback." The service is still too new for most roads to establish definite trends but findings so far are more than enough to justify optimism. And this month, as carriers and shippers focus attention on Perfect Shipping, there are indications that piggyback service is making a contribution where it really counts. Claims bills are rare.

To determine what claims experience railroads have had in trailer-on-flat-car service, *Railway Age* queried traffic, operating and claims men of over a dozen major carriers. In nearly every case the answer was the same: No claims at all; or, in a few cases, very small claims representing concealed damage.

T. F. Behler, vice-president of the Missouri-Kansas-Texas Transportation Company and head of the Katy's piggyback operation, is typical. "We had not had one report of damage and not one trucker has indicated anything to that effect," he declared. "Our experience to date has been entirely damage free."

The Katy carries motor common carrier trailers in piggyback service and in the period from January 3 to February 11 handled 477 trailers. The contract arrangement places responsibility for damage on the railroad, while motor carriers are responsible for loss.

Southern Pacific trailer-flat car service has fared much the same as the Katy's. Since the SP began piggyback

operations in May 1953, damage claims have been "insignificant." Agreement with this viewpoint comes also from the Great Northern and the Northern Pacific. "The NP has had only claims for minor damage in connection with its piggyback operations which started September 1, 1954. Five claims, totaling about \$81, have been filed and most of these represent concealed damage. Our people feel it has made a good showing, damage-wise," said a spokesman for that road.

"While we have had claims, our people consider them low in number and amount," the GN reported. This road began T-O-F-C service in May 1954, and feels it is still too early to trace a definite claims pattern.

This same trend of "no claims" or "minor claims" cropped up in conversations with the Wabash, Reading, Baltimore & Ohio, Nickel Plate, New Haven, Santa Fe, Chicago & North Western and Erie. While piggyback service spread swiftly in the last half of 1954 it did not seem to contribute much to the year's \$102,800,000 in loss and damage claims.

The Pennsylvania was specific in spelling out its claims experience with piggybacks. Since beginning its own "TrucTrain" service last July—all in PRR trailers and the road's responsibility from door to door—the carrier had only 16 claims while handling 1,913 loaded trailers. This is for the period which ended January 31, 1955.

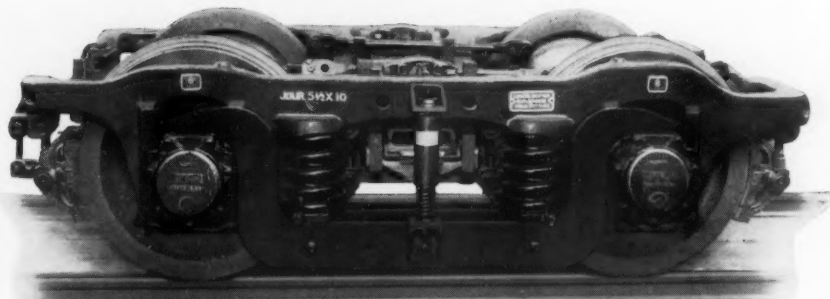
The largest PRR claim during this time resulted from water damage to sheet steel. It amounted to \$1,200.57. The other 15 claims altogether totaled not quite \$380.

"The ratio of claim payments per \$100 of freight rev-  
(Continued on page 60)

# The New Economical Way to Replace Heavy, Worn-Out Baggage and Express Cars in Passenger Train Operation



Light weight head-end cars of modern design, such as the storage-mail express car illustrated above, equipped with COMMONWEALTH latest type BX Trucks, are the economical solution to the problem of replacing old, heavy weight equipment.



For operation at passenger train speeds, head-end commodity cars—express refrigerator cars—mechanically refrigerated cars—trailer carrying flat cars—all should be equipped with COMMONWEALTH BX type trucks to assure safe, smooth performance, to greatly reduce damage to lading and car, and for most economical operation.

When you consider replacing worn-out,

heavy weight head-end cars, COMMONWEALTH BX type trucks offer outstanding advantages in economy and performance. Design includes equalization, swing-motion and one-piece cast steel truck frame with pedestals cast integral to insure perfect alignment of wheels and axles.

COMMONWEALTH BX Trucks are accepted in passenger train interchange without exception. Write today for full information!



## GENERAL STEEL CASTINGS

GRANITE CITY, ILL.

EDDYSTONE, PA.



SERVICE  
BAR in  
new  
Dome  
Observation Cars

Photo courtesy A.C.F. Industries, Inc.

## BAR AND FOOD SERVICE EQUIPMENT *by* COLONNA

### for Union Pacific's New Dome Cars

The above photos are views of Colonna equipment on the Union Pacific's new Dome Observation Cars. They show the most efficient arrangement of complete beverage service facilities, and stainless steel construction for cleanliness and durability, key-noting features of all Colonna equipment.

These bar cars along with the new diners are important factors in assuring luxurious comfort and convenience for passengers who travel on these beautiful trains.

We are proud to have been a part of this new car program of a great railroad and of cooperating with A.C.F. Industries, Inc., builders of these superb Dome Cars.



## ANGELO COLONNA

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FOOD SERVICE EQUIPMENT

# OVER 300,000



## automatic door operators



### for all types of applications ...are in use today

Wherever you travel, you'll see *NP* Automatic Operators opening and closing doors . . . making each passenger's trip pleasant, convenient and safe.

Almost all major subway and railroad systems use *NP* Automatic Door Operators because of their efficiency, quality and economy.

*NP* Automatic Door Operators speed up passenger interchange. They reduce loss of heat, help air conditioning systems work more effectively and require very little maintenance. As a result, they soon repay their low initial cost.

National Pneumatic Co., Inc. makes automatic end door operators for both swing and sliding doors, for use on both new and reconditioned coaches.

Write today for our Publications No. 116-A (Sliding End Door Operator) and No. 1063 (Swing End Door Operator), which give complete details.

### Equipment that improves passenger relations

**NATIONAL PNEUMATIC CO., INC. AND HOLTZER-CABOT DIVISIONS**

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mechanical, pneumatic, hydraulic, electric  
and electronic equipment and systems



# CANADIAN PACIFIC RAILWAY COMPANY

## Seventy-fourth Annual Report of the Directors to the Shareholders

(abridged)

### Highlights

YEAR'S RESULTS	1954	1953	Increase or Decrease	YEAR-END POSITION	1954	1953	Increase or Decrease
Gross Earnings .....	\$ 422,642,423	\$ 470,571,371	\$47,928,948	Property Investment ..	\$1,694,213,632	\$1,610,001,777	\$84,211,855
Working Expenses .....	395,609,497	441,686,799	46,077,302	Other Investments ....	172,535,069	179,766,333	7,231,264
Net Earnings .....	27,032,926	28,884,572	1,851,646	Funded Debt .....	172,793,500	126,114,000	46,679,500
Ratio Working Expenses				Reserves .....	601,920,444	571,675,089	30,245,355
Earnings .....	93.6%	93.9%	3%	Working Capital .....	109,131,467	90,593,778	18,537,689
Other Income .....	\$ 17,835,319	\$ 16,802,051	\$ 1,033,268	TRAFFIC			
Interest and Rental				Tons of Revenue Freight			
Charges .....	15,041,997	14,236,161	805,836	Carried .....	54,203,877	59,256,634	5,052,757
Dividends—				Revenue Passengers			
Preference stock .....	3,091,101	3,130,586	39,485	Carried .....	9,528,589	9,426,934	101,655
Ordinary stock .....	20,714,318	20,710,474	3,844	Revenue per Ton Mile of			
Balance for Moderniza-				Freight .....	1.46c	1.42c	0.04c
tion and Other Cor-				Revenue per Passenger			
porate Purposes ...	6,020,829	7,609,402	1,588,573	Mile .....	2.82c	2.82c	....
				EMPLOYEES			
				Employees, All Services	87,072	95,211	8,139
				Total Payrolls .....	\$ 287,120,929	\$ 311,943,927	\$24,822,998
				Average Annual Wage	\$ 3,298	\$ 3,276	\$ 22

As your Company approaches the three-quarter century mark, your Directors have the honour of reporting on the results and developments of the year just past.

The year 1954 saw a decline from the high levels of economic activity which characterized the two previous years, and an intensification of competition in business generally. Gross railway earnings decreased \$48 million, or 10%, from the previous year. The decline in the volume of freight traffic in terms of revenue ton miles was 14%.

The greater part of the reduction in traffic volume was accounted for by a decrease of about one-third in the movement of grain and grain products because of reduced export demands. It is significant that while decreases were also recorded over a wide range of manufactured and miscellaneous goods, there were many commodities which showed increases. After mid-1954, an improvement occurred in the trend of traffic.

The decrease in traffic necessitated a strict control of expenses. The reduction in outlay for maintenance was greater proportionately than the drop in traffic volume. This was accomplished by the elimination of all but the most pressing maintenance work. Substantial operating economies were effected through a further increase in the use of diesel power. By these means, the decrease in net railway earnings was held to \$1.9 million.

The results for the year represent a return on net railway investment of 2.15%, as compared with 2.40% in 1953. The continuing low level of results of recent years, due to the failure of revenues to increase as rapidly as expenses, has been of great concern to your Directors.

It is encouraging to see that there is a growing awareness, as indicated by recent public discussion, of the urgent necessity of affording relief from the burden imposed by statutory and related grain rates at which about one-third of the traffic volume of your railway moves. Attention is being drawn increasingly to the fact that these rates constitute a major factor contributing to the serious inadequacy of railway revenues which your Company has experienced for a number of years.

Dividend income from The Consolidated Mining and Smelting Company of Canada, Limited, was higher, and net earnings from your hotel and communication properties increased. The results of the operations of your ocean and coastal steamships were again unfavorable. Other Income amounted to \$17.8 million, an increase of \$1 million over the previous year.

Net Income, after providing for payment of dividends of 4% on Preference Stock, was sufficient to pay \$1.50 per share on Ordinary Stock and leave 44 cents per share as retained earnings.

Receipts from petroleum rents, royalties and reservation fees amounted to \$8.4 million, an increase of \$1.1 million.

A capital expenditures programme to increase the capacity of your Company to serve its patrons and to raise the quality of its services has been aggressively followed. A total of \$96 million was spent for additions and betterments in 1954—\$84 million on your railway and \$12 million on your steamships, hotels, communications and miscellaneous properties.

The Income, Profit and Loss and Land Surplus Accounts of your Company show the following detailed results for the year ended December 31, 1954:

### Income Account

Gross Earnings .....	\$422,642,423
Working Expenses .....	395,609,497
Net Earnings .....	\$ 27,032,926
Other Income .....	17,835,319
	\$ 44,868,245
Fixed Charges .....	15,041,997
Net income .....	\$ 29,826,248
Dividends:	
Preference Stock .....	\$ 3,091,101
Ordinary Stock .....	20,714,318
	23,805,419
Balance transferred to Profit and Loss Account .....	\$ 6,020,829

### Profit and Loss Account

Profit and Loss Balance	
December 31, 1953 .....	\$283,294,249
Balance of Income Account	
for the year ended December 31, 1954 ..	\$ 6,020,829
Portion of steamship insurance recoveries representing adjustment of excess over net book value, and compensation for increased cost of tonnage replacement ..	1,608,609
Excess of considerations received for sales of properties over book values, and miscellaneous items .....	1,222,238
	8,851,676
Profit and Loss Balance	
December 31, 1954, as per Balance Sheet .....	\$292,145,925

### Land Surplus Account

Land Surplus December 31, 1953 .....	\$ 84,601,387
Add:	
Receipts from Petroleum Rents, Royalties and Reservation Fees ..	\$8,439,780
Land and Townsite Sales ..	3,567,151
Miscellaneous Receipts ...	885,925
	\$12,892,856
Deduct:	
Administrative and Other Expenses .....	\$ 675,953
Taxes (Incl. \$3,800,000 income taxes) .....	4,483,264
Inventory Value of Lands Sold .....	57,305
Miscellaneous .....	1,136
	5,215,386
	7,677,470
Land Surplus December 31, 1954, as per Balance Sheet .....	\$ 92,278,857

(Advertisement)

### Railway Operations

Gross earnings amounted to \$423 million, a decline of \$48 million from the all-time high of the previous year. The decrease occurred mainly in freight revenues which produced more than four-fifths of the gross earnings.

Freight traffic measured in ton miles was down 14%. The decrease was largely the result of a reduction of 31% in the movement of grain and grain products. In other commodity groups, decreases occurred in the movement of crude petroleum and such finished commodities as agricultural implements, automobiles and miscellaneous goods, but there were increases in miscellaneous agricultural products, non-ferrous metals, canned goods, machinery boilers and castings, iron and steel products, and paper and paper products.

Passenger traffic in terms of passenger miles decreased slightly, but, for the first time since 1944, there was an increase in the number of revenue passengers carried. The average passenger journey, which had been increasing steadily in length since 1949, decreased somewhat.

Express traffic was down from 1953, reflecting general business conditions. It was not possible to match the decrease in revenues with an equivalent reduction in expenses, and the net revenues of your Express Company, carried to railway earnings as compensation for the carriage of express traffic, decreased 16%.

Working expenses amounted to \$396 million, a decrease of \$46 million, and were at their lowest point since 1950.

A decrease in maintenance expenses accounted for two-thirds of the reduction in total working expenses. Maintenance of way and structures expenses declined by 22%, and maintenance of equipment expenses by 12%.

Maintenance of way included the laying of 433 miles of new and relay rail, down 58% from the previous year; the installation of 2.2 million ties, down 19%; and the application of ballast to 280 miles of line, down 62%.

Equipment maintenance included the general repair of 372 steam locomotives, periodic repair of 275 diesel-electric units, the heavy repair of 29,867 freight cars, and general repair of 839 passenger cars. Although work was curtailed, serviceability of equipment remained satisfactory having regard to the volume of traffic offering.

Transportation expenses, because of the necessity of maintaining regular services, decreased only 7%. Notable improvements were effected in service and operating efficiency. There was a decrease of 14% in the cost of train fuel compared with a decrease of 9% in train miles operated. This favourable comparison reflects the fuel economies resulting from increased use of diesel power. Freight train speed and gross ton mile per freight train hour were higher than in any previous year, and were 17% and 21%, respectively, above the performance in 1948, the year before diesel units were used in road service.

Net earnings from railway operations amounted to \$27.0 million, down \$1.9 million from 1953, but the ratio of net to gross was 6.4%, as compared with 6.1% in the previous year.

### Other Income

Other Income, after income taxes, amounted to \$17.8 million, an increase of \$1 million.

Ocean and coastal steamship operations resulted in a net deficit of \$2 million, exceeding that of the previous year by \$1.5 million. Earnings of your ocean steamships decreased because of reduced tonnage of west-bound cargoes, while eastbound cargo rates, particularly on grain and flour, remained at a low level. More passengers were carried on the North Atlantic than in any post-war year, but there was less cruise patronage, and total passenger

revenue declined. Revenues from coastal operations decreased, but an improvement in net earnings resulted from a reduction in operating expenses.

Net earnings of hotels increased \$332,000 because of an improvement in convention, banquet and tourist business.

Net earnings from communication services increased \$303,000. An increase in leased private wire business and a decrease in expenses more than compensated for a decrease in telegraph message traffic.

Dividend income rose \$1.3 million. Dividends declared by The Consolidated Mining and Smelting Company of Canada, Limited, were at the rate of \$1.35 per share out of earnings of \$1.50 per share compared with \$1.20 out of earnings of \$1.23 per share in 1953.

Net income from interest, separately operated properties and miscellaneous sources increased \$145,000, owing principally to an improvement in the results of operation of the Insurance Fund which in 1953 had suffered heavy losses.

### Fixed Charges

Fixed charges amounted to \$15.0 million, an increase of \$806,000. There was a net increase in the charges on equipment trust obligations.

### Net Income and Dividends

Net income after fixed charges, at \$29.8 million, was down \$1.6 million. After provision for dividends on Preference Stock, earnings available for dividends on Ordinary Stock and for reinvestment amounted to \$26.7 million. This was equal to \$1.94 per share on 13,812,014 shares of Ordinary Stock outstanding at the end of the year, compared with \$2.05 on 13,806,997 shares at the end of 1953.

Dividends were declared on Preference and Ordinary Stock at the same rates as in 1953. Preference Stock dividends amounted to 4%, comprising 2% paid August 3, 1954, and 2% paid February 1, 1955. Ordinary Stock dividends amounted to \$1.50 per share, comprising 75 cents paid August 2, 1954, and 75 cents paid February 28, 1955.

### Land Accounts

The net addition to Land Surplus Account amounted to \$7.7 million, after income taxes of \$3.8 million.

Gross receipts from petroleum rents, royalties, and reservation fees amounted to \$8.4 million, up \$1.1 million. Royalties from crude oil were received on 13.6 million barrels from 697 wells, compared with 9.9 million barrels from 590 wells in 1953.

Long-term contracts were negotiated providing for payment to your Company of annual fees of \$1.00 per acre on a total of some 500,000 acres formerly held under reservation at nominal fees. At the year end, 1.3 million acres in respect of which your Company holds petroleum rights were under lease, and 8.6 million acres were under reservation for exploration.

The appeal of your Company and Imperial Oil Limited as lessee, from the decision of the Supreme Court of Alberta in the case in which Anton Turta claimed title to petroleum rights underlying 160 acres of land in Alberta, was dismissed by the Supreme Court of Canada on May 20, 1954.

Proceeds from sales of land amounted to \$3.6 million, \$860,000 more than in the previous year. Sales included 14,187 acres of farm land, at an average price of \$11.31 per acre, and 43,139

(Advertisement)

acres of timber lands. Contracts involving 7,821 acres of land sold in prior years were cancelled.

#### Balance Sheet

Total assets at the end of the year amounted to \$2,055 million, an increase of \$92 million.

The increase in property investment was \$84 million. Capital expenditure for rolling stock amounted to \$71 million, of which \$25 million was for freight train cars, \$24 million for passenger train cars and \$21 million for diesel-electric power.

An amount of \$5.5 million was credited to a new account, "Tax Equalization Reserve," representing the difference for the year between the aggregate of income tax provisions charged against income and the estimated amount of taxes payable. Inasmuch as the reduction in taxes payable arises from a decision to deduct for tax purposes capital cost allowances in excess of depreciation charges made against income in the accounts, it has been deemed prudent to credit the saving to a reserve which will be drawn upon in those future periods when the depreciation situation is reversed.

#### Finance

On August 1, The Royal Trust Company, as Trustee, entered into an agreement providing for the issue of \$17.2 million principal amount of Equipment Trust Certificates, guaranteed as to principal and interest by your Company. This issue, designated as Series "N", maturing in equal semi-annual instalments from February 1, 1955, to August 1, 1962, inclusive, is payable in Canadian currency, and bears interest at 3% per annum. Under this agreement, diesel-electric locomotive units to be constructed at an estimated cost of \$18.8 million in Canadian funds are leased to your Company, at a rental equal to the instalments of principal of and interest on the Equipment Trust Certificates. The Certificates are issued to the builders as the locomotive units are delivered, and \$6,654,000 principal amount had been issued at the end of the year. The balance of \$10,546,000 will be issued during 1955.

Eighteen Year 3½% Collateral Trust Bonds, dated November 15, were issued and sold in the principal amount of \$25 million, and were secured by pledge of \$30 million principal amount of Consolidated Debenture Stock. These bonds are callable prior to maturity, at the option of your Company, on at least 45 days' prior notice, in whole or from time to time in part, and if in part, in principal amounts of not less than \$5 million, as follows: on or after November 15, 1956, at 103.25% up to and including November 14, 1958; thereafter up to and including November 14, 1970, at percentages reducing by one-half of one per cent every two years; and thereafter at 100%; plus accrued interest in each case.

During the year serial equipment obligations amounting to \$9.9 million were discharged, and \$122,500 Convertible Twenty Year 3½% Collateral Trust Bonds, \$3,000 Convertible Fifteen Year 3½% Collateral Trust Bonds and \$1,000 Convertible Seventeen Year 4% Collateral Trust Bonds were converted into a total of 5,017 shares of Ordinary Capital Stock.

The foregoing transactions, and the issue of Equipment Trust Certificates, Series "M", referred to in the 1953 Annual Report, resulted in a net increase in funded debt of \$46.7 million, a net increase in the amount of Consolidated Debenture Stock pledged as collateral of \$29.8 million, and an increase of \$125,425 in the amount of Ordinary Capital Stock outstanding.

#### Pensions

Pension expense amounted to \$17.1 million. This comprised the portion of current pensions paid by your Company, contributions

of \$5.8 million to the Pension Trust Fund, and levies in respect of employees covered by the United States Railroad Retirement Act.

#### Wage Negotiations

Settlements providing a five day week and increases in daily rates in yard service were reached with locomotive firemen, helpers and hostlers, effective February 16 on the Eastern Region and April 1 on the Prairie Region, and with locomotive engineers on the Prairie and Pacific Regions effective April 1.

The requests made by non-operating employees in 1953 for increased benefits were submitted to a Conciliation Board, and, following the failure to reach a settlement, both parties agreed to be bound by arbitration. The award of Chief Justice G. M. Sloan of British Columbia, appointed as arbitrator by the Government of Canada, provided, effective January 1, 1955, for payment to hourly rated employees for five statutory holidays not worked, and for increased vacations with pay for hourly rated employees with three to five years' service and for both hourly and monthly rated employees after 15 years' service. The five statutory holidays agreed upon were New Year's Day, Good Friday, Dominion Day, Labour Day and Christmas Day. Certain details were left to be settled by negotiation. The requests for penalty pay for work on Sundays and for paid sick leave were denied.

Requests similar to those of the non-operating employees were made by the Order of Railroad Telegraphers, and by the Brotherhood of Maintenance of Way Employees on behalf of extra gang labourers. Negotiations in respect of these requests had not been concluded at the end of the year.

#### Employees

In 1954, there were 87,000 employees engaged in the various activities of your Company.

Of this total some 67,000 were employed in railway operations. This number comprised 13,000 engaged in maintaining road property, 18,000 in maintaining rolling stock, 16,000 in train and yard operations, 8,000 in the control and direction of train movements and the handling of freight and other traffic, and 12,000 in the performance of clerical, station and a variety of miscellaneous other duties.

Of the remaining 20,000 engaged in the other enterprises of your Company, some 5,000 were employed in ocean and coastal steamship services, 5,500 in express operations, 4,000 in hotels, 3,000 in commercial communication services, 1,500 in air services, and 1,000 in other operations.

The loyalty and high standards of officers and employees contribute to the enviable reputation for service which your Company enjoys.

#### Steamships

Work progressed on your new 22,500 ton passenger-cargo liner, begun in September 1953. This vessel is to enter North Atlantic passenger and freight service in the spring of 1956. The keel of a sister ship was laid in January 1955.

The trans-Pacific cargo service inaugurated in 1952 was discontinued in mid-1954 owing to failure of traffic to develop as anticipated. Your two vessels "Mapledell" and "Maplecove" were therefore returned to the North Atlantic making possibly more frequent freight service to north-western European ports.

Your vessel "Beaverbrae" was withdrawn from service in August and sold to Italian interests.

(Advertisement)



## Air Lines

A dividend amounting to \$400,000 was received from your Air Lines. The net profit was \$969,000 after charging interest of \$299,000 on advances from your Company, as compared with net profit of \$366,000 in 1953. The result for the year includes a profit of \$593,000 from the sale of aircraft not suitable for present services, while the previous year included an income tax recovery of \$525,000 arising from the loss carryback provision.

During the first full year of operation of the Vancouver-Mexico-Lima route extension there was considerable passenger travel from Hong Kong to Mexico en route to the Caribbean area. Some additional flights were operated on the Vancouver-Honolulu and Tokyo-Hong Kong routes to accommodate the growing demand for space, and tourist service was instituted on flights between the Antipodes and North America, and between the Orient and North America. In line with the increasing importance of your international routes, sales offices were established in New York and Los Angeles to secure a share of the traffic originating in those large centres.

Improvements in domestic services were effected in a number of regions. On the mountainous Okanagan-Kootenay district, pressurized Convair 240 aircraft replaced the smaller and slower DC-3 equipment, and a general reduction of fares was instituted. Frequency of service was increased between Montreal and Quebec, between The Pas and Churchill, and from Edmonton and Vancouver to Whitehorse. Cargo rates on routings southward into Edmonton from points in the MacKenzie area were reduced by fifty per cent to develop "backhaul" traffic.

A request for a license to operate a direct service from Vancouver to Amsterdam was granted by the Air Transport Board early in 1955.

## Rates

Early in 1954, the Honourable W. F. A. Turgeon was appointed Royal Commissioner to enquire into the application and effects of agreed charges and the question as to whether the so-called "one and one-third rule" should be applied to such charges. Agreed charges are provided for in the Transport Act under which railways are permitted to enter into contracts with customers for special rates in consideration of agreements by the customers to ship by rail all or a specified proportion of their traffic. The "one and one-third rule" requires that rates to intermediate points in the territory between Eastern Canada and the Pacific Coast shall not exceed the transcontinental competitive rates on the same commodities by more than one-third. The appointment of the Royal Commission followed representations by the Province of Alberta that that rule be made to apply to agreed charges.

At the hearings of the Commission, the railway companies objected to the application of the "one and one-third rule" to agreed charges and presented a strong case for relaxation of the restrictions on the making of agreed charges as they now exist under the Transport Act. They took the position that the more extensive use of agreed charges and the ability to put them into effect with a minimum of delay is necessary to enable the railways to meet the increasing competition from motor carriers. The railways strongly urged, in particular, that the provisions of the Transport Act requiring approval by the Board of Transport Commissioners before an agreed charge could come into effect, should be eliminated and that the waiting period before an agreed charge could become effective be reduced from thirty to fifteen days. The representations of the railways were supported in varying degrees by some of the large industries and some of the representatives of Provincial Governments, and opposed by trucking organizations and certain other industries. The report and recommendations of the Commissioner are expected to be released shortly.

An application was made to the Board of Transport Commissioners by the Canadian Passenger Association and its member rail-

way companies for rescission of the Board's order of September 1950 prescribing the commutation fares which have been in effect since that time. The applicants submitted that the revenue from these rates was insufficient to pay out-of-pocket costs and expressed their intention of putting into effect a series of increases aggregating about 100% of existing fares, including an immediate increase of 50%. Following hearings in Toronto, the Board, by order dated August 4, 1954, authorized three graduated increases in commutation fares in the Toronto area totalling 100% over a period of twelve months, and, following hearings in Montreal and Ottawa, authorized, by order dated February 18, 1955, an increase of 50% in all commutation areas other than Toronto. Judgment in respect of the balance of the increases in areas other than Toronto was reserved.

Reduced competitive rates were made effective September 21 on certain freight traffic moving between Montreal and Toronto. The reductions applied on less-than-carload merchandise in trailer-on-flat-car vanload quantities and on certain carload movements. While it is yet too early to assess fully the result of these reductions, it is now known that some traffic has been recovered, and some which might otherwise have been lost, has been retained.

## Services

Further progress was made in the modernization of your railway services. Diesel locomotives were assigned to your transcontinental passenger trains, to passenger services between Windsor, Toronto, Montreal and Quebec, and to through freight services between Winnipeg and Edmonton. This was made possible by the acquisition during the year of 94 diesel units. Work was begun on a new diesel maintenance shop at Montreal.

New freight train cars placed in service totalled 2,840, of which 1,500 were box cars.

New passenger equipment totalled 123 units, of which 90 were stainless-steel cars, part of a total of 173 ordered from The Budd Company, 3 were self-propelled rail diesel cars, and 30 were other passenger train cars.

A highlight of the year was the tour across Canada, for inspection by the public, of units of the luxurious new stainless-steel equipment, featuring scenic-dome cars. This equipment is being introduced into your transcontinental passenger services as the units are received from the builders.

Additional "Dayliner" services, provided by rail diesel cars on fast daily return schedules, were put into operation between Edmonton and Calgary, and between Toronto and Peterborough. Seven of these popular cars were in service by the end of the year.

Coordination of truck and rail services of your Company was advanced by the inauguration in May of an overnight trailer-on-flat-car service between Winnipeg and Regina.

Seventy miles of branch lines, to serve new mining and industrial sites, were under construction during the year. Work was started on a forty mile line between Struthers and Manitowadge in Ontario, a nine mile line between Mitford and Jumping Pound in Alberta, and a four mile line running northward from Cheviot in Saskatchewan. As a result of the rapid completion of a seventeen mile branch from Havelock to Nephton in Ontario, it was possible to commence service on that line in December.

Facilities were under construction at Vancouver and Nanaimo to serve the new car ferry to be placed in service in 1955. A 200-foot apron adjustable to tide level is being provided at each site for the loading and unloading of railway cars, automobiles and trucks to and from the ferry.

Automatic block signal systems, which make an important contribution to the safety and efficiency of your railway operations, were extended by 121 miles during 1954, bringing to 2,989 the total mileage so equipped.

(Advertisement)

New industrial trackage aggregating 49 miles was constructed to serve 187 of the 881 manufacturing, warehousing and distributing businesses which located on or adjacent to the lines of your railway during the year.

In the communications field, your Company, jointly with Canadian National, commenced television network service between Toronto and London at the beginning of the year, and shortly thereafter Hamilton was added. Facilities were under construction for a similar service between London and Windsor and between Montreal and Quebec. Also jointly with Canadian National, a leased network service was established for the transmission of pictures by wire for reproduction in newspapers in Ontario and Quebec.

#### Patrons

Your Directors desire to express their sincere appreciation of the patronage throughout the year of shippers and the travelling public.

For the Directors,

W. A. Mather,  
President.

Montreal, March 14, 1955.

### Canadian Pacific Railway Company • General Balance Sheet, December 31, 1954

ASSETS		LIABILITIES	
<b>Property Investment:</b>		<b>Capital Stock:</b>	
Railway, Rolling Stock and Inland Steamships .....	\$1,233,595,863	Ordinary Stock .....	\$345,300,350
Improvements on Leased Property .....	143,664,885	Preference Stock—4% Non-cumulative .....	137,256,921
Stocks and Bonds—Leased Railway Companies .....	133,972,534		\$ 482,557,271
Ocean and Coastal Steamships .....	70,310,628	<b>Perpetual 4% Consolidated Debenture Stock</b>	<b>\$419,921,388</b>
Hotel, Communication and Miscellaneous Properties .....	112,669,722	Less Pledged as collateral to bonds .....	127,372,500
	\$1,694,213,632		292,548,888
			172,793,500
<b>Other Investments:</b>		<b>Funded Debt</b>	
Stocks and Bonds—Controlled Companies ..	\$ 84,159,303		
Miscellaneous Investments .....	34,805,312	<b>Current Liabilities:</b>	
Advances to Controlled and Other Companies .....	11,320,328	Pay Rolls .....	\$ 9,208,925
Mortgages Collectible and Advances to Settlers .....	1,026,734	Audited Vouchers .....	11,714,879
Deferred Payments on Lands and Townsites .....	4,726,766	Net Traffic Balances .....	2,151,448
Unsold Lands and Other Properties .....	8,125,242	Miscellaneous Accounts Payable .....	11,741,120
Insurance Fund .....	13,188,540	Accrued Fixed Charges .....	1,136,309
Steamship Replacement Fund .....	15,202,844	Unmatured Dividends Declared .....	11,887,639
	172,555,069	Other Current Liabilities .....	24,263,844
			72,104,164
			4,119,502
<b>Current Assets:</b>		<b>Deferred Liabilities</b>	
Material and Supplies .....	\$ 50,567,370		
Agents' and Conductors' Balances .....	16,124,372	<b>Reserves and Unadjusted Credits:</b>	
Miscellaneous Accounts Receivable .....	22,746,359	Depreciation Reserves .....	\$577,853,264
Government of Canada Securities .....	44,929,158	Investment Reserves .....	1,260,221
United Kingdom Treasury Bills .....	2,991,317	Insurance Reserve .....	13,188,540
Cash .....	43,877,055	Contingent Reserves .....	4,118,419
	181,235,631	Tax Equalization Reserve .....	5,500,000
		Unadjusted Credits .....	6,869,020
			608,789,464
<b>Unadjusted Debits:</b>			37,196,774
Insurance Prepaid .....	\$ 115,399	Premium on Capital and Debenture Stock ..	92,278,857
Unamortized Discount on Bonds .....	4,385,269	Land Surplus .....	292,145,925
Other Unadjusted Debits .....	2,029,345	Profit and Loss Balance .....	\$2,054,534,345
	6,530,013		
	<u>\$2,054,534,345</u>		

ERIC A. LESLIE  
Vice-President  
and Comptroller

#### TO THE SHAREHOLDERS, CANADIAN PACIFIC RAILWAY COMPANY:

We have examined the above General Balance Sheet of the Canadian Pacific Railway Company as at December 31, 1954, and the related financial statements, and have obtained all the information and explanations we have required. Our examination included such tests of accounting records and other supporting evidence and such other procedures as we considered necessary in the circumstances.

In our opinion the General Balance Sheet and related financial statements are properly drawn up so as to present fairly the financial position of the Canadian Pacific Railway Company at December 31, 1954, and the results of its operations for the year then ended, according to the best of our information and the explanations given to us and as shown by the books of the Company.

Montreal, March 11, 1955

PRICE WATERHOUSE & CO.  
Chartered Accountants

(Advertisement)

## TELEPHONE SYSTEM PAYS

(Continued from page 51)

foremen to discuss jobs and order tools without spending time walking around.

Shop men can receive calls from engine crews at distant points requesting information to help them make emergency repairs on locomotives. An engineer called the South Louisville shops from Lebanon Junction, Ky., for example, stating that his diesel had stopped. The shop foreman asked about the "symptoms" prior to the failure, and by telephone he supervised an inspection of the engine. The trouble was located and remedied by the engineer, on telephone instructions from the foremen. When a repair crew must leave the shop for a job, the foreman is briefed by telephone about the trouble, and is thus able to take the tools and parts needed for the job, eliminating lost time in returning to the shop for needed parts.

Ordering supplies, parts and equipment by telephone in emergencies has made possible the concentration of storehouses at the principal central locations, thereby reducing stocks of materials as well as store expenses. In such emergencies, typed requisitions are sent later by mail as a matter of record. In the majority of instances in which quick action is needed, decisions can be made or action taken hours or even days sooner than would be possible by mail or available telegraph service. The telephone system has enabled railroad management to keep a direct and close control over all operations.

### **Yard Dispatcher and Watchman Service**

Included in the automatic exchanges at Louisville, Birmingham and Radnor yards is a yard dispatcher's circuit which can be simultaneously connected with several dial telephones, all of which may break in at any time. Thus not only can the dispatcher be called from several locations, but he can set up a conference call among several men concerning yard moves. Another feature of some of these automatic exchanges is a recording and checking system for night watchman service, in which certain telephones used for regular service also serve as watchman's stations.

### **Message and Dispatch Circuits**

In addition to automatic exchanges at the more important terminals, and long-distance trunks between terminals, telephone service is provided at way stations so agents can communicate quickly with the operating or traffic department concerning cars required or cars loaded and ready to be moved. This service is ordinarily handled on one circuit on each division, calling being by selective ringing, similar to that used in telephone systems for train dispatching. The L&N has telephone train dispatching service under the jurisdiction of the train dispatchers on all divisions for handling train orders and messages concerning movement of trains.

The telephone systems on the L&N were installed and are maintained by railroad men in the telephone department working under the jurisdiction of H. W. Burwell, telephone engineer. The automatic telephone exchanges were furnished by the Automatic Electric Company.

## PIGGYBACKS: DAMAGE REDUCERS

(Continued from page 52)

enue in this service amounts to \$0.448, and if we eliminate the one large claim, the ratio per \$100 of freight revenue would have been \$0.108," the PRR reported. By comparison, the road's ratio for movement by ordinary freight cars in 1954 was \$1.68.

### **No Damage—Why?**

The question of Why No Damage? is an imponderable. But it brings a lot of theory from railroad men. Some attribute it to the tie-down equipment, which absorbs longitudinal shock; some say it is the "double springing" of flat car springs plus trailer springs, and still others figure it is the fewer handlings that count. Chances are, it's a bit of all three, and possibly more.

R. F. Sederberg, freight claim agent of the North Western, attributes much of the improved claims picture on piggybacks to more selective loading.

"You are apt to load a merchandise car at the freight-house the way freight is brought in," Mr. Sederberg explained. "As a result, your loading can't always be as orderly as you might like. A trailer van is smaller, however, and you can plan loads better; there's less chance of a heavy item going in on top of the load."

The C&NW has found, like other carriers, that loss and damage is "substantially lower" in piggybacks than in carloads. The road's trailer-carrying flats are moved in regular trains, and the road feels it is too early to evaluate its loss and damage findings "until we've experienced all possible incidents."

A spokesman for the Santa Fe said his road had had no claim "directly or indirectly" from piggyback operations. He suggested that less bulk in a 25- to 35-ft trailer, as compared to a 40- to 50-ft car, may be what holds down damage in transit.

"Our T-O-F-C service, thus far, has given considerable indication that freight will ride with less chance for damage," confirms H. B. Halsted, freight traffic manager of the Kansas City Southern. "This is no doubt due to additional cushioning and not dropping cars when switched, as well as more careful and compact loading of trailers than is ordinarily practiced in loading of box cars."

Both the New Haven and the Burlington emphasize fewer handlings as a factor in cutting damage claims.

Reporting in a loss and damage questionnaire, L. R. Capron, traffic vice-president of the CB&Q, observed: "Coordinating Burlington Truck Lines with the railroad's pick-up and delivery service and moving trailers via piggyback to avoid rehandling helps prevent loss and damage."

The "fewer handlings" school has several adherents. S. H. Milby of the Texas & New Orleans' (SP) freight protection, merchandise and station service cited reduced platform handling at stations, especially at transfer points, as a major item in lowering damage claims with piggybacks.

"Another important factor," he added, "are impact register tests. Such tests on trailer-on-flat cars have been very favorable and this has undoubtedly prevented damage to some extent."





## CITY GIVES NEW STATION TO RAILROAD

AN OUTRIGHT GIFT to its local railroad, the Central of Georgia, of a new and thoroughly modern \$55,000 passenger and freight station highlighted Alexander City, Ala.'s "Railroad Appreciation Day," March 30 (*Railway Age*, April 4, page 5). Over 2,000 people witnessed dedication of the new building, in a ceremony which CofG President W. E. Dillard described as "the first of its kind in the Central's 122-year history." Reason for the ceremony and the gift, according to a proclamation by Alexander City Mayor Joe H. Robinson, was the fact that "the Central of Georgia has, for nearly three-quarters of a century, rendered meritorious and inestimable services to this area and particularly to our city through the faithful and zealous performance of its duties and responsibilities in the areas of transportation and commerce." The picture above shows the new station from trackside. At the right, in the usual order, are the principal participants in the "day"—John Miller, general counsel, CofG; Mr. Dillard; Mayor Robinson; A. W. Ledbetter, chairman, executive committee, CofG; R. E. Sease, assistant general manager, CofG; R. S. Wil-



banks, Jr., president, Alexander City Chamber of Commerce; and Robert S. Henry, vice-president, public rela-

tions, Association of American Railroads, who was principal speaker at the ceremony.

## Competitive Transport

(Continued from page 13)

Sharing the speakers' platform with Mr. Loomis, before members of the Chicago Union League Club and the Club's Railway Supply Group, were William A. Patterson, president, United Air Lines, and Chester C. Thomson, chairman, American Waterways Operators, Inc.—both of whom argued that their respective forms of transportation had helped railroads.

Mr. Patterson contended that "increased mobility of salesmen and commercial correspondence made possible by air service have stepped up the tempo of American business and thus generated more traffic for surface freight transportation." He conceded, however, that air lines have left railroads with the "very undesirable half" of intercity passenger travel. He predicted jet airliners by 1961, but said

they would be economical only on runs of over 1,500 miles, and then only if a single design is accepted by all air lines.

## Safety

### Pyrene—C-O-Two Display New Fire Detecting Device

A new method of detecting fire in the earliest stage, without dependence on visible smoke or heat for actuation, was demonstrated last week at the Newark, N. J., general offices and factory of Pyrene—C-O-Two. With pre-detector heads, containing a radio-active element, spaced on centers up to 60 ft apart or up to 30 ft from side walls, the system is said to quickly detect the smallest smoldering fire and indicate

its location. Pilot installations have been made in a television station, a railroad signal tower, an electric power plant, network analyzer room, two air line flight training equipment rooms and the offices of an insurance company.

Heart of the C-O-Two Pre-Detector system is an overhead detection device electrically connected to a fire indicating cabinet. Each head contains a highly sensitive gas discharge (cold cathode) tube, plus two independent chambers, one of which is exposed to the atmosphere and the other virtually sealed from the atmosphere. A minute source of radio-active material is mounted in each of these chambers. Radiation ionizes the air in the respective chambers, causing it to become electrically conductive.

Each chamber is adjusted to give equal voltage when combustion gases or smoke are non-existent. When combustion gases or smoke are present, the balanced condition no longer exists;

the chamber exposed to the atmosphere rapidly changes its condition, causing the tube to become electrically conductive, which in turn operates a relay in a space indicating cabinet, if used, or the fire indicating cabinet.

With a single circuit, pre-detector heads are connected directly to the fire indicating cabinet. When combustion gases or smoke are present, relays in the fire-indicating cabinet function to sound alarms, close fire doors, activate fire extinguishing systems, or perform other fire protection functions. If it is desirable to know the location of the fire, a space-indicating cabinet can be connected through separate circuits, each circuit containing the necessary number of heads to cover specified locations.

## Labor & Wages

### Hire From Unemployment Benefit Rolls, RRB Urges

The Railroad Retirement Board is urging railroads to give preference this spring to unemployment benefit claimants when hiring new employees. The board says higher unemployment benefit rates in effect since last July make it more important than ever to protect the railroad unemployment insurance benefit account.

During May through August 1954, the board reported, railroads hired some 37,000 persons who had never before worked for a railroad. If only half of these had been supplied by the board's placement service and taken from unemployment benefit rolls, it might have saved as much as \$900,000, the board estimated.

### L&N Non-op Strike Still in Effect

The non-operating unions' strike against the Louisville & Nashville and its affiliated roads was still in effect as this issue went to press. The National Mediation Board was holding separate meetings in Washington with representatives of the carriers and the unions.

As L&N supervisory forces continued to maintain limited freight services, two separate instances of violence were reported. At Moran, Tenn., railroad communication lines were severed, and at Birmingham, Ala., homes of two non-striking employees were damaged by bombs, although no one was hurt.

To charges of a Nashville, Tenn., newspaper that the L&N refused to sign "any kind" of contract with the non-ops, President John E. Tilford replied by wire: "Only demand company has declined to accept relates to compelling employees to accept health and welfare insurance under national policy at higher cost than individual company policy with equal benefits."

## Accounting

### Erie Rents Two IBM "650" Computers

The Erie has ordered two new type electronic computing machines to add to its "already extensive" punch card methods for preparing car records, disbursement and revenue accounting, and freight claim settlements.

The computers were ordered from the International Business Machines Corporation for delivery in 1956 or earlier. Known officially as magnetic drum data processing machine type 650, they operate under a plan of "stored" instructions and can accommodate 2,000 individual steps with a "memory" of 20,000 positions. The machines process 200 cards per minute and can "read" as many as 80 characters on each card, or 16,000 digits per minute. They can add or subtract 10-digit numbers at the rate of 200 a second, multiply at 100 a second, or divide at 80 a second, according to George W. Oakley, Erie comptroller.

The "memory" drum is the heart of the machine and with its electronic speeds can produce in a single opera-

### "I FAVOR RAILROAD CONSOLIDATIONS"—WHITE

"I am in favor of railroad consolidations and always have been because I think it is in the public interest that there be fewer railroads and more large systems. I think this would be not only in the interest of the public but also of railroad security holders. Bigness in itself is not necessarily a desirable end, nor is bigness an evil to be shunned. This is a big country; we do things in a big way, and we need big railroads like we need big manufacturing concerns, big banks, etc. Small railroads are at a disadvantage. Individually they are not able to engage in research on the large scale that is necessary. They are handicapped in attracting large industries on their lines. They are required to do most of the things that large railroads are required to do without the larger revenues to absorb the cost. And even though some weaker railroads would have to be included with the stronger in effecting consolidations, there is a bigger spreading of the risk. We see now the Interstate Commerce Commission is doing a little urging with respect to railroad consolidations, and that is all to the good. But consolidations must come voluntarily, just as they have in the past and I am sure will continue in the future."—From an address to the Investment Association of New York by William White, president, Delaware & Hudson.

tion detailed statistics that once required multiple card handling and processing. The "electronic brain" has self-checking devices to insure accuracy. Errors are automatically detected and when they occur the machine can be instructed to stop or can be programmed to repeat that portion of the computation for accurate determination.

## New Facilities

### Canso Causeway Near Completion

Canadian National train operation over the new government-built causeway and bridge connecting the Nova Scotia mainland and Cape Breton island across the Strait of Canso is tentatively scheduled to begin about the middle of April, although official opening of the new structures will not take place until August 13.

The causeway itself is completed; track has been laid on it; and connecting tracks between the causeway and the former CNR line have been installed, but work is still in progress on the bridge which is needed to permit steamship passage through the strait.

As reported in *Railway Age* August 20, 1951, page 72, when plans for the causeway were first outlined, the new causeway and bridge are expected to permit a material reduction in running time of CNR trains between Truro, N.S., and North Sydney, by eliminating the existing car ferry service by which trains now cross the strait between Mulgrave and Point Tupper.

### NP to By-pass Homestake Tunnel

A 3,440-ft line change scheduled for completion about November 1 will enable the Northern Pacific to by-pass historic Homestake tunnel near Butte, Mont.

A contract for grading the new line has been awarded to the Albert LaLonde Company, Sidney, Mont. NP forces will handle track laying, which will start sometime after September 30, when the grading is scheduled for completion. The 680-ft tunnel, since 1890 the NP's point of crossing the Continental Divide, will be abandoned. The new line will be about 300 ft south of the tunnel and will cross the divide at about the same altitude (6,328 ft). The change will cost approximately \$460,000.

**Bessemer & Lake Erie.**—The ICC has authorized this road to construct a 1.8-mile spur connecting with the Pittsburgh & Conneaut Dock at Lakeville, Ohio, and to operate under trackage

rights over 0.3 miles of the P&CD (*Railway Age*, January 10, page 192).

**Chesapeake & Ohio.**—Construction of new ore-storing facilities at Riverville, Va., has begun. The facilities are necessary because of a need by the U.S. General Services Administration for stockpiling an estimated 400,000 tons of ore from domestic sources. The new C&O facility will cost over \$100,000. Grading of the 15-acre area will be done by the Sutton Company, Radford, Va.; track serving the area will be laid by C&O forces.

**Great Northern.**—Megarry Brothers, St. Cloud, Minn., will handle grading and drainage work on the new \$6-million classification yard at Minot, N.D. (*Railway Age*, April 4, page 44). The Roel Construction Company, Fargo, will build the freight house and transfer platform, car repair shop, yard office and control tower, a hump yardmaster's office buildings, and locomotive inspection pits. The GN now estimates that the yard project, which gets under way this month, will require 18 months for completion.

**Peoria & Pekin Union.**—This road is now using radio in its East Peoria yard and on locomotives operating in the Peoria-Pekin, Ill., terminal area. The Federal Communications Commission authorization allows the road one base station with remote controls in the East Peoria yard office and the general office building in Peoria, as well as 15 mobile radio sets, which are installed on locomotives and in the trainmaster's automobile.

**Sandersville.**—This road has asked the ICC to authorize a 5.6-mile extension of its line from Sandersville, Ga., to a location known as "the Griner Place" for industrial service.

## Abandonments

### NYC Would Give Ferries To New York City

The New York Central has offered to give its entire ferryboat service between Weehawken, N.J., and 42nd and Cortlandt streets, New York, to the city of New York. The offer was made in a letter to Peter Campbell Brown, corporation counsel for the city, who announced recently that the city would intervene in abandonment proceedings now pending before the Interstate Commerce Commission to keep the Central from discontinuing the Weehawken ferry.

The railroad offer includes its entire fleet of seven ferries; rental of the passenger ferry house in Weehawken on lease of \$1 a year; all statistical data on the service, which is being

operated at a deficit to the Central of \$1,185,000 a year; and all equipment used in maintaining the vessels.

[The city says it doesn't want the ferries; but adds that it will insist, before the ICC, that the Central continue to operate them, regardless of financial losses.]

## Authorizations

**BALTIMORE & OHIO.**—To abandon 1.86 miles of its Adamsburg branch from Adamsburg Junction, Pa., to the end of the line, and to abandon operation under trackage rights over the Pennsylvania between Adamsburg Junction and Youghiogheny Junction, 9.64 miles.

**CHESAPEAKE & OHIO.**—To abandon its Snow Fork subdivision between Snow Fork Junction, Ohio, and Ward Junction, totaling, with an extension from Orbiston Junction, 7 miles of track.

**CHICAGO & NORTH WESTERN.**—To abandon 1.03-miles of track at the western end of its Swanzy branch near Princeton, Mich.

**MONTANA, WYOMING & SOUTHERN.**—To abandon its entire line totaling 32 miles from Bridger, Mont., to Washoe. The Northern Pacific was authorized to abandon operation over 12 miles of the MW&S from Bridger to Belfry.

**NEW YORK, NEW HAVEN & HARTFORD.**—To abandon a 1,750-foot segment of its Mansfield-Whittemont branch in Mansfield, Mass., in connection with a grade crossing elimination.

**READING.**—To abandon a 1,800-foot segment at the end of its Eagle Hill Colliery branch in Schuylkill County, Pa.

**STERLING MOUNTAIN.**—To abandon its entire line from Lakeville, N.Y., to a junction with the main line of the Erie at Sterlington, a total of eight miles.

**WESTERN MARYLAND.**—To abandon a 1.47-mile segment of track at the end of its Chaffee branch in Garret county, Md.

## Securities

**Maine Central.—St. Johnsbury & Lake Champlain Acquisition.**—The ICC has exempted this road from competitive bidding requirements in connection with its proposed issuance and sale of \$1,700,000 of first mortgage and collateral bonds (*Railway Age*, March 7, page 56). Part of the proceeds from the sale would go toward the \$450,000 purchase price of the StJ&LC, the bulk toward redemption of \$1,408,000 of divisional lien bonds. ICC action on the actual issuance was deferred.

## Application

**BALTIMORE & OHIO.**—To assume liability as guarantor of \$32,000,000 of first mortgage 4% terminal bonds, series A, of the Baltimore & Ohio Chicago Terminal. The B&O proposes to use the proceeds from contemplated sale of these bonds to retire a like amount of refunding mortgage 5% bonds with interest on the latter to be paid from the B&O treasury. The transaction is part of the B&O's refinancing plan and sale of the bonds has been negotiated through Gloré, Fargan & Co., Halsey, Stuart & Co. and Alexander Brown & Sons, the B&O advised the commission.

## Authorizations

**ATLANTIC COAST LINE.**—To issue \$13,474,000 of 25-year, 3½% general mortgage bonds, series D, in exchange for a like amount of 3½% bonds, series X, authorized January 10 and now held in the ACL treasury (*Railway Age*, March 7, page 56). Division 4 authorized sale of the

securities at an interest rate of 3½% for 98.04—the bid of The First Boston Corporation and eight associates—which will make the annual cost of the proceeds to the road approximately 3.74%.

**CENTRAL OF GEORGIA.** To assume liability for \$930,000 of equipment trust certificates to finance in part purchase of six diesel-electric freight locomotives (*Railway Age*, February 21, page 37). Division 4 approved sale of the securities at an interest rate of 3½% for 99.35—the bid of Salomon Bros. & Hutzler and three associates—which will make the annual cost of the proceeds to the road approximately 3.25%.

**NEW YORK, NEW HAVEN & HARTFORD.**—To pledge and repledge \$745,000 of first and refunding mortgage 4% bonds, series A, in lieu of \$596,000 of Providence Terminal bonds now pledged as collateral for a note with the Manufacturers Trust Company (*Railway Age*, December 20, 1954, page 39).

## Dividends Declared

**ATCHISON, TOPEKA & SANTA FE.**—\$1.25, quarterly, payable June 1 to holders of record April 29.

**NEW YORK, NEW HAVEN & HARTFORD.**—5% preferred, \$1.25, payable April 25 to holders of record April 8.

**VERMONT & MASSACHUSETTS.**—\$3, semiannual, payable April 7 to holders of record March 29.

## Security Price Averages

	April 5	Prev. Week	Last Year
Average price of 20 representative railway stocks	91.41	91.26	60.41
Average price of 20 representative railway bonds	98.59	99.26	94.47

## Equipment & Supplies

### India Plans to Buy Cars and Locomotives

The Railways Ministry of India has announced it will buy about 24,000 freight cars and 774 new locomotives this year, according to Foreign Commerce Weekly. Half the cars and 170 locomotives will be built in India and the remaining equipment will be purchased from foreign countries, partly under the United States aid program.

### FREIGHT CARS

The Chesapeake & Ohio has ordered 500 box cars from the Pullman-Standard Car Manufacturing Company at a cost of \$5,750,000. The cars will be equipped with special devices for more efficient loading and to prevent damage to lading.

### LOCOMOTIVES

### Iran to Invite Bids On 20 to 50 Diesels

The Iranian State Railways reportedly soon will invite bids for 20 to 50 diesel locomotives, and for a rail-laying project, according to Foreign Commerce Weekly. Although it has not yet been decided whether the locomotives



will be diesel-electric or diesel-hydraulic, technical specifications, in French, may be borrowed from the Commercial Intelligence Division, Bureau of Foreign Commerce, U. S. Department of Commerce, Washington 25, D.C. Specifications for the rail-laying project may also be borrowed from the same division.

### Turkey Would Buy 30 Diesel Locomotives

The Directorate of Turkish State Railways is inviting bids for supply of 30 diesel road locomotives, according to Foreign Commerce Weekly. Specifications, costing approximately \$18, are available from Devlet Demiryollari Umum, Malzeme Dairesi, Ankara, Turkey, to which address bids also are to be sent.

## Financial

### New Haven-B&M Hearing Starts Despite Protest

Chief Justice Warren of the U. S. Supreme Court refused on April 4 to halt the Interstate Commerce Commission hearing at Boston investigating corporate relationships between the New Haven and the Boston & Maine. James A. Walsh, secretary of a group of B&M stockholders who oppose the present management, sought court action to prevent the hearing after the ICC denied petitions filed by him and other stockholders seeking to delay the hearing until after the B&M annual meeting April 13 and to dismiss the investigation. At the commission it was reported the hearing started April 4 after a delay of several hours pending outcome of the court action. The ICC investigation was announced after Massachusetts Senators Saltonstall and Kennedy called for an inquiry into allegations that New Haven interests were seeking to acquire control of the B&M (*Railway Age*, March 14, page 83).

**Pennsylvania.—Trackage Rights.**—The ICC has authorized trackage rights for this road over the Detroit, Toledo & Ironton between Springfield, Ohio, and South Charleston, 12.9 miles (*Railway Age*, February 14, page 43).

**Union Pacific.—Trackage Rights.**—This road and its subsidiary, the Oregon-Washington, have requested ICC authority to operate over 20 miles of the Milwaukee under trackage rights from Manito, Wash., to Plummer Junction, Idaho. The UP and O-W also asked authority for the latter to construct and the former to operate over one mile of double track connecting the O-W and Milwaukee at Manito.

## Organizations

### Subjects for Pan American Congress Papers Listed

A list of subjects for technical papers to be submitted in connection with the Ninth Pan American Railway Congress, to be held in April 1956 at Buenos Aires, Argentina, has been announced by the United States National Commission in the international railroad association.

The list includes 125 general topics and 12 special subjects covering way and structures; equipment and power; operation; accounting, statistics, tariffs, coordination and administration; and legislation and personnel. The commission also will accept papers on additional subjects. All papers must be in the hands of the commission on or before October 15, 1955.

Prizes for the best papers on a number of subjects will be awarded. Honorary awards and more than \$13,000 in cash were presented for outstanding papers on railroading during the Eighth Congress, held in the United States in 1953.

The Pan American Railway Congress Association is a permanent international organization whose primary purpose is to contribute to advancement of railroads in the Western Hemisphere. Some 20 South and Central American countries, as well as the United States government and individual railroads in this country, are members of the association.

William J. Fritton, vice-president and director of the Van der Horst Corporation, Olean, N.Y., will present a paper on maintenance techniques employed on diesel-electric locomotives at the **International Internal Combustion Engines Congress**, at The Hague, the Netherlands, May 23-27.

"St. Louis and Its Transportation Problems" will be the general topic for discussion during the 13th annual meeting of the **Lexington Group**, to be held at St. Louis April 27 at the Hotel Jefferson. In conjunction with the **Mississippi Valley Historical Association**, the group will hear and discuss papers by Professor James H. Lemly of the University of Georgia, Professor William T. Doherty, Jr., of the University of Arkansas, and others. Discussion will be led by William J. Burton, former assistant chief engineer of the Missouri Pacific, who is currently preparing a history of that system. The group will also visit the St. Louis Museum of Transport.

President Harry A. DeButts of the Southern was guest of honor at the

List of Meetings and Conventions begins on page 67.

1955 Washington dinner of the **Newcomen Society in North America**. The dinner, at which Mr. DeButts was also the speaker, was held March 31 in Washington's Mayflower Hotel. The Southern's president talked about "men of vision" who had a part in the development of that railroad system and thus "served the south." He was introduced by President William T. Faricy of the Association of American Railroads.

## Supply Trade

**Charles R. Joyce**, sales representative of the Brake Shoe & Castings division, **American Brake Shoe Company**, at Cleveland, has been appointed eastern sales manager at New York, and **Daniel C. Poor**, sales representative at Chicago, has been transferred to Cleveland.

**C. J. McGowan** has been appointed sales engineer for Standard Steel Works division of **Baldwin-Lima-Hamilton Corporation**, in western Pennsylvania and West Virginia, with office in Pittsburgh. He was formerly associated with **Kropp Forge Company** at Chicago.

**A. M. Byers Company** has consolidated its sales and order departments into a single unit, known as the sales-order department. **L. G. Hubbell**, formerly manager of the order department, is manager of the new department, and **C. H. Flinn**, chief clerk of the sales department, is assistant manager.

**J. D. Latimer** has been elected chairman of the board of **International Creosoting & Construction Co.**, and **E. H. Moore**, president.



**HARRY R. DEUBEL**, western division manager, railroad sales, **Chicago Pneumatic Tool Company**, who has been appointed manager, railroad sales division, with headquarters remaining in Chicago.

## Railway Officers

**BURLINGTON.**—O. J. Smidl, assistant to vice-president, operation (contracts), has been appointed assistant vice-president, operation (contracts) with headquarters as before at Chicago. Mr. Smidl joined the road



O. J. Smidl

in 1900, serving in the traffic department. After advancing through several positions he became supervisor of operating department contracts in 1941, and assistant to vice-president, operation (contracts) in 1947.

**CHICAGO & NORTH WESTERN.**—Gerald W. Armstrong has been named district freight agent at Milwaukee, succeeding Cyril O. Dienberg, whose appointment as general agent at Rockford, Ill., was announced in *Railway Age* March 14.

Albert P. Ruotsala has been named geologist at Chicago.

**GULF, MOBILE & OHIO.**—L. A. DeOrnellas, assistant to comptroller at Mobile, Ala., retired March 1, after 39 years of service.

**LACKAWANNA.**—John Finnerty, trainmaster, Scranton division, has been appointed assistant superintendent safety, succeeding James F. Scanlon, who has retired after 37 years of service.

**MILWAUKEE.**—F. L. King, master mechanic at Milwaukee, has retired.

**MISSOURI-ILLINOIS.**—Fredrick P. Sackbauer, traffic manager, retired April 1, after 52 years of railroad service, 34 of which were with M-I. His successor is George L. Eastman, freight traffic manager at St. Louis.

**NEW HAVEN.**—Phillip S. Jones, district passenger agent at Hartford, Conn., has been appointed general passenger agent at New Haven, succeeding Richard D. Johnson, deceased. Furman W. Richards, passenger sales representative at New Haven, succeeds Mr. Jones as district passenger agent at Hartford. Emil Fisher has been

appointed assistant general passenger agent at Boston, succeeding G. S. Douglas, who has been transferred to Providence, R.I.

**NEW YORK CENTRAL.**—Kenneth E. Dunn, assistant engineer, maintenance of way—line west, at Cleveland, and John H. Kelly, assistant chief engineer, maintenance of way at New York, have been named assistant engineers, maintenance of way—system, at New York. Lyle Bristow, division engineer of the Big Four at Springfield, Ohio, succeeds Mr. Dunn as assistant maintenance of way—line west, NYC, at Cleveland. The titles of assistant chief engineers, maintenance of way at New York, have been abolished. W. R. Benish, assistant division engineer at Weehawken, N.J., has been appointed division engineer of the St. Lawrence, Adirondack and Ottawa divisions at Watertown, N.Y.

T. G. Bourne, district car inspector—line west, at Cleveland, has been appointed assistant industrial engineer—system, at New York, succeeding E. H. Wright, promoted.

George D. Avery, assistant general freight agent of the NYC system at Boston, has been appointed assistant general freight agent and manager industrial development there, succeeding John G. Patten, whose promotion to general freight agent at that point was reported in *Railway Age* January 3. George W. Stiglich, assistant general freight agent at Boston, has been named division freight agent at Worcester, Mass., succeeding William H. Naylor, who succeeds Mr. Avery as assistant general freight agent at Boston. Joseph J. Trifero succeeds Mr. Stiglich as assistant general freight agent at Boston.

H. A. Scott, acting chief signal engineer at Cleveland, has been named chief signal engineer there. L. S. Bot-



H. A. Scott

tinelli has been appointed assistant chief signal engineer at Cleveland.

Norman S. Tirsway has been named supervisor of freight loss and damage prevention at Indianapolis.

William D. Trader has been appointed to the newly created position



**RICHMOND, FREDERICKSBURG & POTOMAC.**—Charles E. Mervine, Jr., supervisor of personnel, has been appointed director of personnel at Richmond, Va., reporting to the president on matters involving personnel procurement, classification and training, and to the general superintendent on all matters involving labor and wage contracts of all departments.

of salary administrator at New York, to "study and recommend policies and procedures for establishing and administering a fair and equitable compensation plan for employees not covered by union agreements, and for supervisory and executive personnel." Mr. Trader was formerly associate director, executive compensation service, for the American Management Association.

**NORFOLK & WESTERN.**—H. E. Brown, city passenger agent at Norfolk, Va., has been promoted to division passenger agent there, succeeding the late W. B. Plaine (*Railway Age*, March 14).

Dr. M. P. Moore, medical examiner in the general offices at Roanoke, has been appointed medical director of the relief and pension department, succeeding Dr. B. E. Topham, who retired March 31, after 38 years of service. Dr. R. E. Christie, associate medical examiner in Roanoke shops, succeeds Dr. Moore.

**NORTHERN PACIFIC.**—C. V. Schutt, assistant engineer in the district engineer's office at St. Paul, has been appointed division engineer, St. Paul division, succeeding F. B. Darling, retired. D. F. Bartley replaces Mr. Schutt.

**ROCK ISLAND.**—J. J. Hinkle, general agent at Seattle, has been transferred to San Francisco, succeeding C. D. Mason, who has been appointed assistant to western freight traffic manager. W. J. Mullaly, traveling freight and passenger agent at Seattle, replaces Mr. Hinkle. George A. Martin, general agent at Omaha, has been named division passenger agent at Davenport, Iowa, succeeding J. H. Clarkson, who



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retired March 31 after 46 years of service. Mr. Martin's successor is **B. G. Wright**, district passenger agent at Washington, D. C.

**SEABOARD.**—The following have been appointed system diesel supervisors, reporting to diesel superintendents: **W. A. Moore**, Jacksonville, Fla.; **W. V. McEwen**, Tampa, Fla.; **Fred Woods**, Hialeah, Fla.; **E. F. Sanborn**, Americus, Ga.; **J. R. Hayes**, Savannah, Ga.; **F. L. Latham**, Raleigh, N.C.; **R. L. Griffin, Sr.**, Wildwood, Fla.; **W. H. Cramer**, Howells shops, Atlanta, Ga.; **C. H. Campbell**, Hamlet, N.C.; and **L. Rosenblatt**, Hermitage shops, Richmond, Va.

**M. A. Negro**, assistant real estate agent, has been appointed real estate agent, with headquarters as before at Norfolk, Va., succeeding **Joseph Kendall Waitt**, who retired March 31.

**Earl Patterson** has been appointed general eastern freight agent at New York, succeeding **J. D. Dawson**, who retired April 1 after 55 years with this and subsidiary companies. The position of eastern freight agent, heretofore held by Mr. Patterson, has been abolished. **R. P. Nitchman**, senior commercial agent at New York succeeds to Mr. Patterson's duties, with the title of general agent. **M. P. Gibson**, commercial agent at New York, has been named general agent at Baltimore, succeeding **J. F. Williams**, whose appointment as assistant general freight agent at Richmond, Va., was reported in *Railway Age* February 14.

**SOO LINE-DULUTH, SOUTH SHORE & ATLANTIC.**—**Vernon K. Boe** has been appointed tax commissioner of these roads at Minneapolis, succeeding **H. A. Thomson**, who retired April 1 after 44 years with the Soo Line. Mr. Boe was formerly assistant tax commissioner of the Soo Line and general tax agent of the DSS&A.

**SOUTHERN.**—**Fred A. Burroughs**, assistant vice-president, personnel, has been appointed assistant vice-president, labor relation, with headquarters remaining at Washington, D.C. **Lawson G. Tolleson**, chief personnel officer, has been named director of labor relations, also with headquarters remaining at Washington. **John W. Cox**, personnel officer, **Julian M. Ford**, assistant personnel officer, **Roy A. DeRossett**, assistant to personnel officer, and **Joseph G. Matthews**, trainmaster at Asheville, N.C., have been named assistant directors of labor relations at Washington.

**John T. Hiner**, assistant division engineer at Atlanta, has been appointed division engineer at Bristol, Va. **John H. Hall**, bridge and building supervisor at Valdosta, Ga., succeeds Mr. Hiner as assistant division engineer at Atlanta.

**Hubert E. Warren**, road foreman of engines at Atlanta, has been appointed trainmaster at Knoxville, Tenn., succeeding **James A. Johnson**, who



has been transferred to Greensboro, N.C. Mr. Johnson succeeds **Robert H. Snyder**, transferred to Asheville to replace Mr. Matthews. **Henry B. Garmon**, road foreman of engines at Asheville, has been named trainmaster at Columbia, S.C.

**Robert B. Curry** has been appointed to the newly created position of assistant comptroller at Washington. For the past seven years Mr. Curry has been assistant director (business operations) of Johns Hopkins Applied Physics Laboratory in Silver Spring, Md.

**William M. Hager**, assistant valuation engineer at Washington, has been promoted to valuation engineer there.

## OBITUARY

**Margaret Talbott Stevens**, 63, former associate editor of the **Baltimore & Ohio Magazine**, who retired in 1952 as research librarian of the B&O, died March 30 at a convalescent home in Baltimore.

## Meetings and Conventions

The following list gives names and addresses of secretaries, and dates and places of next or regular meetings.

**AIR BRAKE ASSOCIATION**.—Lawrence Wilcox, Room 827, 80 E. Jackson Blvd., Chicago 4. Annual meeting September 12-14, 1955, Hotel Sherman, Chicago.

**ALLIED RAILWAY SUPPLY ASSOCIATION**.—C. F. Weil, P. O. Box 5522, Chicago 80. Exhibit in conjunction with Coordinated Mechanical Associations meeting, September 12-14, 1955, Hotel Sherman, Chicago.

**AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS**.—T. R. Stanton, 1450 Railway Exchange Bldg., St. Louis 1. Annual meeting, June 27-29, 1955, Lake Placid Club, Lake Placid, N. Y.

**AMERICAN ASSOCIATION OF PASSENGER RATE MEN**.—William Bina, 1115 Railway Exchange, Chicago 4. Interim meeting, May 2-3, 1955, Congress Hotel, Chicago. Annual meeting, September 22-25, Chateau Frontenac, Quebec.

**AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS**.—B. D. Branch, Eastern Time Table Distributing Company, Liberty Street Terminal, New York 6.

**AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS**.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting, June 7-9, 1955 Hotel La Salle, Chicago.

**AMERICAN ASSOCIATION OF TRAVELING PASSENGER AGENTS**.—C. A. Melin, P. O. Box 5025, Cleveland 1. Annual meeting, October 7, 1955, New York. October 8-14, Tour to Bermuda on Queen of Bermuda.

**AMERICAN COUNCIL OF RAILROAD WOMEN**.—Amy Mitchell, Atlanta & West Point, Atlanta 3.

**AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION**.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting, September 19-21, 1955, Conrad Hilton Hotel, Chicago.

**AMERICAN RAILWAY CAR INSTITUTE**.—W. A. Renz, 19 E. 47th St., New York 17.

**AMERICAN RAILWAY DEVELOPMENT ASSOCIATION**.—F. E. Wolff, Canadian Pacific, Toronto 1, Ont.

**AMERICAN RAILWAY ENGINEERING ASSOCIATION**.—Works in cooperation with the Association of American Railroads, Engineering Division.—Neal D. Howard, 59 E. Van Buren St., Chicago 5.

**AMERICAN RAILWAY MAGAZINE EDITORS ASSOCIATION**.—C. F. McCallum, New York, New Haven & Hartford, Room 2050, Grand Central Terminal, New York. Spring meeting, May 13, 1955, Sheraton-Belvedere, Baltimore. Annual meeting September 28-30, 1955, Broadmoor Hotel, Colorado Springs, Colo.

**AMERICAN SHORT LINE RAILROAD ASSOCIATION**.—C. E. Huntley, 2000 Massachusetts Ave., N. W., Washington 6, D. C. Annual meeting, October 11-12, 1955, Hotel Morrison, Chicago.

**AMERICAN SOCIETY FOR TESTING MATERIALS**.—R. J. Painter, 1916 Race St., Philadelphia 3. Annual meeting, June 26-July 1, 1955, Chalfonte-Haddon Hall, Atlantic City.

**AMERICAN SOCIETY OF MECHANICAL ENGINEERS**.—C. E. Davis, 29 W. 39th St., New York 18. Railroad Division.—R. L. Wilson, American Brake Shoe Company, Mahwah, N. Y.

**AMERICAN WOOD-PRESERVERS ASSOCIATION**.—W. A. Penrose, 839 Seventeenth St., N. W., Washington 6, D. C. Annual meeting, April 13-15, 1955, Jefferson Hotel, St. Louis.

**ASSOCIATED TRAFFIC CLUBS OF AMERICA**.—R. P. DeGroote, Luckenbach Steamship Co., Inc., 110 S.

Dearborn St., Room 1107, Chicago 3. Annual meeting, September 18-21, 1955, Hotel Cleveland, Cleveland.

**ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS**.—P. E. Griffith, 2028 Clark Ave., St. Louis 3. Annual meeting, October 11-13, 1955, Shoreham Hotel, Washington, D. C.

**ASSOCIATION OF AMERICAN RAILROADS**.—George M. Campbell, Transportation Bldg., Washington 6, D. C. Operations and Maintenance Department.—R. G. May, Vice-president, Transportation Bldg., Washington 6, D. C.

**Operating-Transportation Division**.—A. I. Ciliske, 59 E. Van Buren St., Chicago 5.

**Operating Section**.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5.

**Transportation Section**.—H. A. Eaton, 59 E. Van Buren St., Chicago 5.

**Communications Section**.—A. H. Grothmann, 59 E. Van Buren St., Chicago 5. Annual meeting, May 17-19, 1955, St. Francis Hotel, San Francisco. Exhibits at Sir Francis Drake Hotel.

**Fire Protection and Insurance Section**.—W. E. Todd, 59 E. Van Buren St., Chicago 5. Annual meeting, October 3-5, 1955, Lord Baltimore Hotel, Baltimore.

**Freight Loss and Damage Prevention Section**.—G. H. Ruhle, 59 E. Van Buren St., Chicago 5. Annual meeting, May 10-12, 1955, Cosmopolitan Hotel, Denver.

**Freight Station Section**.—W. E. Todd, 59 E. Van Buren St., Chicago 5. Annual meeting, June 14-16, 1955, Hotel Morrison, Chicago.

**Medical and Surgical Section**.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5.

**Protective Section**.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5. Annual meeting, May 18-20, 1955, Bellevue Stratford Hotel, Philadelphia.

**Safety Section**.—H. S. Dewhurst, 59 E. Van Buren St., Chicago 5. Annual meeting, June 7-9, 1955, Statler Hotel, Buffalo.

**Electrical Section of the Engineering and Mechanical Divisions**.—S. W. Marras, 59 E. Van Buren St., Chicago 5. Annual meeting, June 21-23, 1955, Sheraton-Mt. Royal Hotel, Montreal.

**Engineering Division**.—E. G. Gehrke, 59 E. Van Buren St., Chicago 5.

**Construction and Maintenance Section**.—Neal D. Howard, 59 E. Van Buren St., Chicago 5.

**Signal Section**.—R. H. C. Balliet, 59 E. Van Buren St., Chicago 5. Annual meeting, October 11-13, 1955, Jung Hotel, New Orleans.

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CLEVELAND: Hotel Cleveland



Mechanical Division.—Fred Peronto, 59 E. Van Buren St., Chicago 5. Annual meeting, June 21-23, 1955, Sheraton-Mt. Royal Hotel, Montreal.

Purchases and Stores Division.—John L. Timanus, Transportation Bldg., Washington 6, D. C. Annual meeting, May 16-18, 1955, Palmer House, Chicago.

Freight Claim Division.—R. E. O'Donnell, 59 E. Van Buren St., Chicago 5. Annual meeting, May 10 and 12, 1955, Cosmopolitan Hotel, Denver.

General Claims Division.—Bruce H. Smith, 59 E. Van Buren St., Chicago 5. Annual meeting, May 4-6, 1955, Sheraton Park Hotel, Washington, D. C.

Car Service Division.—Arthur H. Gass, Chairman, Transportation Bldg., Washington 6, D. C.

Finance, Accounting, Taxation and Valuation Department.—Arthur R. Seder, Vice-President, Transportation Bldg., Washington 6, D. C.

Accounting Division.—R. E. Keefe, Transportation Bldg., Washington 6, D. C. Annual meeting, June 27-30, 1955, Ambassador Hotel, Atlantic City.

Treasury Division.—R. E. Keefe, Transportation Bldg., Washington 6, D. C. Annual meeting, October 3-6, Roney Plaza, Miami Beach.

ASSOCIATION OF INTERSTATE COMMERCE COMMISSION PRACTITIONERS.—Miss Sarah F. McDonough, Executive Secretary, 2218 ICC Building, Washington 25, D. C. Annual meeting, May 5-6, 1955, Hotel Commodore, New York.

ASSOCIATION OF RAILROAD ADVERTISING MANAGERS.—A. W. Eckstein, Illinois Central, 135 E. Eleventh Pl., Chicago 5. Annual meeting, January 26-28, 1956, New York.

BRIDGE AND BUILDING SUPPLY ASSOCIATION.—L. R. Gurley, Modern Railroads, 201 N. Wells St., Chicago 6.

CANADIAN RAILWAY CLUB.—G. R. Fitt, P. O. Box 162, Montreal 3, Quebec. Regular meetings, second Monday of each month, except June, July and August. Sheraton-Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.—E. S. Walsh, 2606 Scott Ave., St. Louis 3. Regular meetings fourth Tuesday of each month except June, July, August and December, Hotel DeSoto.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Strommel, 6536 Oxford Ave., Chicago 31. Annual meeting, September 12-14, 1955, Hotel Sherman, Chicago.

CAR FORMEN'S ASSOCIATION OF CHICAGO.—W. R. McCain, Mather Stock Car Company, 326 N. Michigan Ave., Chicago 1. Regular meetings, second Monday of each month, except June, July and August, LaSalle Hotel.

CENTRAL RAILWAY CLUB OF BUFFALO.—J. B. O'Connor, 1817 Hotel Statler, Buffalo 5. Regular meetings, second Thursday of each month except June, July and August, Hotel Statler.

CHICAGO RAILROAD DIESEL CLUB.—E. C. Fodick, 813 Sunnyside Ave., Chicago 40. Regular meetings first Thursday after first Sunday of each month except July and August, Hotel Sherman, 7:30 p.m.

CHICAGO RAILROADS CAR ACCOUNTING OFFICERS.—Max Jauch (chairman), Chicago & North Western, 4809 N. Ravenswood Ave., Chicago 40. Regular meetings, last Wednesday of each month, except July and August, Midland Hotel, at 12:15 p.m.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. C. Rochester, Canadian National, 891 Notre Dame St., West, Montreal 3. Next meeting, May 5-6, 1955, Hotel Statler, Buffalo.

EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York 7. Regular meetings, second Friday of January, February, March, April, May, October and November, 29 W. 39th St., New York.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker St., North Little Rock, Ark. Annual meeting, September 12-14, 1955, Hotel Sherman, Chicago.

MAINTENANCE OF WAY CLUB OF CHICAGO.—E. C. Patterson, 400 W. Madison St., Chicago 6. Regular meetings, October through April, Hamilton Hotel, Chicago.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stigmeier, 29 Parkwood St., Albany 8. Annual meeting, September 12-14, 1955, Hotel Sherman, Chicago.

METROPOLITAN MAINTENANCE OF WAY CLUB.—John S. Vreeland, Simmons-Boardman Publishing Corp., 30 Church St., New York 7. Meets in February, April, October and December. Next meeting, April 28, 1955, Railroad-Machinery Club, 30 Church St., New York, 6:30 p.m.

MILITARY RAILWAY SERVICE VETERANS.—F. W. Okie, Union R.R., Frick Bldg., P. O. Box 536, Netherland Plaza, Hotel, Pittsburgh. Annual meeting, September 16-18, 1955, Cincinnati.

MISSISSIPPI VALLEY MAINTENANCE OF WAY CLUB.—P. E. Odom, 1025 Frisco Building, 906 Olive St., St. Louis. Regular meetings, second Monday of each month September through May, DeSoto Hotel, St. Louis.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—R. Eyette Kreeger, 7314 New Post Office Bldg., P. O. Box 684, Washington 4, D. C. Annual meeting, October 24-27, 1955, Grove Park Inn, Asheville, N. C.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—H. E. Bingham, Spencer Chemical Company, Dwight Bldg., Kansas City, Mo. Annual meeting, October 11-13, 1955, Pittsburgh.

NATIONAL DEFENSE TRANSPORTATION ASSOCIATION.—Mrs. Lois C. Gebran, Suite 728, 1001 Connecticut Ave., Washington 6, D. C. Annual meeting, October 12-15, 1955, Sheraton Plaza Hotel, Boston.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—L. J. Doff, Suite 909, Sheraton Bldg., 711 14th St., Washington 5, D. C. Annual meeting, November 17-18, 1955, Conrad Hilton Hotel, Chicago.

NATIONAL RAILWAY APPLIANCE ASSOCIATION.—Kenneth Cavins, Fairmont Railway Motors, Inc., 310 S. Michigan Ave., Chicago 4. Lewis Thomas Asst. Secy., 59 E. Van Buren St., Chicago 5.

NATIONAL SAFETY COUNCIL RAILROAD SECTION.—C. T. DeWitt, Northern Pacific, St. Paul 1, Minn. Annual meeting, October 17-21, 1955, Hotel Morrison, Chicago.

NEW ENGLAND RAILROAD CLUB.—William M. McCombs, 35 Lewis Wharf, Boston 10. Regular meetings, second Tuesday of each month, except May-September, incl. Hotel Vendome, Boston.

NEW YORK RAILROAD CLUB.—C. T. Stansfield, 30 Church St., New York 7. Regular meetings, third Thursday of each month except June, July, August, September and December. Century Room, Commodore Hotel. Reception, 6 p.m.; dinner, 7; meeting, 8:15.

NORTHWEST CARMEN'S ASSOCIATION.—N. J. Maglich, Minnesota Transfer Ry., 2071 University Ave., St. Paul 4, Minn. Regular meetings, first Monday of each month, except June, July, and August, Midway Club, 1931 University Ave., St. Paul.

NORTHWEST LOCOMOTIVE ASSOCIATION.—W. N. Cox, Northern Pacific, St. Paul 1, Minn. Regular meetings, third Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul.

NORTHWEST MAINTENANCE OF WAY CLUB.—L. C. Blanchard, Milwaukee Passenger Depot, Minneapolis 1. Regular meetings, fourth Thursday of each month, September through April, inclusive, excepting November and December which are third Thursday, Midway Club, 1931 University Ave., St. Paul.

PACIFIC RAILWAY CLUB.—S. E. Byler, 121 E. Sixth St., Los Angeles 14. Regular meetings, second Thursday of each alternate month at Palace Hotel, San Francisco, and Elks' Temple, Los Angeles.

RAILROAD PUBLIC RELATIONS ASSOCIATION.—J. Don Parel, Association of American Railroads, Transportation Bldg., Washington 6, D. C. Annual meeting, June 16-18, 1955, Broadmoor Hotel, Colorado Springs, Colo.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, 18 S. Dearborn St., Chicago 3. Annual meeting and dinner, November 18, 1955, Conrad Hilton Hotel, Chicago.

RAILWAY CLUB OF PITTSBURGH.—G. E. Morrison, 2710 Koppers Bldg., Pittsburgh 19. Regular meetings third Thursday of each month, except June-September, incl. and December, Fort Pitt Hotel.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—L. R. Oswald, Thos. A. Edison, Inc., 1500 S. Western Ave., Chicago 8.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—L. H. Peters, New York Central, Room 1213, 139 W. Van Buren St., Chicago 5. Annual meeting, September 12-14, 1955, Hotel Sherman, Chicago.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—A. W. Brown, 527 Lexington Ave., New York 17.

RAILWAY SYSTEMS AND PROCEDURES ASSOCIATION.—I. W. Miliken, Railway Age, 30 Church St., New York 7. Next meeting, April 12-14, 1955, Hotel Morrison, Chicago.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7. Meets with Communications Section of AAR.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 1221 Locust St., St. Louis 3. Annual meeting October 26-28, 1955, Peabody Hotel, Memphis.

ROADMASTER AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elsie La Chance, Room 901, 431 S. Dearborn St., Chicago 5. Annual meeting September 19-21, 1955, Conrad Hilton Hotel, Chicago.

ST. LOUIS RAILROAD DIESEL CLUB.—F. C. Whitlock, Terminal Railroad Association of St. Louis, 376 Union Station, St. Louis 3. Regular meetings second Tuesday of each month, Hotel York, Dinner, 6:45 p.m., meeting, 8.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7. Meets with AAR Signal Section.

SOUTHEASTERN RAILWAY DIESEL CLUB.—H. W. Brewer, Seaboard Air Line, P. O. Box 1654, Norfolk, Va. Regular meetings, second Tuesday in February, April, June, August, October and December, 9:30 a.m., Mayflower Hotel, Jacksonville.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E. Atlanta Regular meetings, third Thursday in January, March, May, and November, at Atlanta.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—F. I. Umbau, Southern Ry., Atlanta 3. Next meeting, July 27-28, 1955, Brown Hotel, Louisville.

TORONTO RAILWAY CLUB.—H. W. Somerville, P. O. Box 8, Terminal "A," Toronto 1, Ont. Regular meetings, fourth Monday of each month, except February, June, July, August and December, Royal York Hotel.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q and C Company, 59 E. Van Buren St., Chicago 5.

WESTERN ASSOCIATION OF RAILWAY TAX COMMISSIONERS.—L. R. Norberg, 516 W. Jackson Blvd., Chicago 6. Regular meetings, 12:15 p.m., first Wednesday of each month, except July and August, Traffic Club, Palmer House, Chicago.

WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago 1. Regular meetings, April 25, May 16, 1955.

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